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International Graduate Students in a Master of Public Health Program: A Mixed Methods Study to Identify Challenges and Needed Supports

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INTERNATIONAL GRADUATE STUDENTS IN A MASTER OF PUBLIC HEALTH PROGRAM: A MIXED METHODS STUDY TO IDENTIFY CHALLENGES AND NEEDED SUPPORTS

by

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A DISSERTATION

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INTERNATIONAL GRADUATE STUDENTS IN A MASTER OF PUBLIC HEALTH PROGRAM: A MIXED METHODS STUDY TO IDENTIFY CHALLENGES AND NEEDED SUPPORTS

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EDUCATIONAL STUDIES IN DIVERSE POPULATIONS

ABSTRACT

The increase in international graduate students (IGSs) in the United States in recent years has created additional linguistic and cultural diversity in graduate programs, thus, spotlighting the existence of these students' unmet challenges. Although much research has been conducted on the experiences of international students in U.S. higher education contexts, very little research has focused on IGSs' transition experiences to and through academic and professional university programs by way of pathway language support programs. Applying activity theory, I designed and conducted this case study with explanatory sequential mixed methods to investigate IGSs' experiences as they transitioned into and through a university Master of Public Health (MPH) program. To reach a broader view of student challenges, I surveyed the perspectives of MPH faculty and administrators, the IGSs, and the university's English language pathway program faculty and staff. Using the survey results and in an effort to dig deeper into the themes that arose in those surveys, I constructed protocols for semi-structured interviews of each of these three groups. Additionally, I gathered background information and artifacts to provide a richer understanding of all stakeholder group contexts. Results indicated mismatches in knowledge and expectations of stakeholders in those three groups, specifically in IGSs' understanding of the learning objectives and assessment styles practiced in the MPH. Implications include ways in which university activity systems

(MPH, pathway programs, and students) can adjust to reduce international students' challenges in U.S. graduate programs.

Keywords: international graduate student, international student, pathway program, acculturation, activity theory, Master of Public Health

DEDICATION

I dedicate this work to the women scholars who not only paved the way for me on this academic journey but also kept a supporting hand on my back, especially *Susan Spezzini, Julia Austin, Rebecca Oxford, Lilian Mina,* and *Sarah Hercula*, among others. I hope to pay it forward.

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GENERAL INTRODUCTION

Overview

During the 2019–20 academic year, and for the fifth year in a row, the number of international students (F-1 visa holders) studying in the United States totaled over one million, according to the 2020 Open Doors® Report (International Educational Exchange [IEE], 2021). Of those students, almost 375,000 were enrolled in U.S. graduate programs. Such internationalization of U.S. graduate programs can result in increased cultural competence, enhanced global understanding, and meaningful exchange of knowledge for students as well as faculty (Allen et al., 2022). However, the prevalence of such linguistic and cultural diversity brought by international students to U.S. institutions of higher education (IHEs) can present academic, culture, and linguistic challenges for those students, challenges that should be addressed by institutions so that international students can be successful and thrive.

Context and Problem

For many years, one of my research interests has been the academic, cultural, and linguistic acclimation of international students. Beginning with my Master of Arts thesis research in 2013 and 2014, I have been cognizant of the myriad transitional challenges experienced by international post-secondary students. The transitions I investigated for my thesis included those experienced by resident language learners at a community college moving from an academic English language program into first-year composition

courses. The results of that qualitative study demonstrated that students had particular difficulty in acclimating to the academic expectations for mainstream college coursework. Participants in the study struggled specifically with the undergraduate reading load and with composing texts that were not the types typically taught in higher education intensive English programs, such as narratives and research reports (Harrison, 2014).

From 2014 to 2022, my work with international graduate students (IGSs) at Auburn University at Montgomery and at the University of Alabama at Birmingham (UAB) focused my attention on the academic adaptations and transitions of IGSs moving into U.S. graduate programs. Throughout my time in the Educational Studies in Diverse Populations doctoral program at UAB, I have kept my research focused on the transitions of international students into U.S. IHEs, specifically IGSs, and how these students could be supported before and throughout those transitions.

While brainstorming the topic of this dissertation, I approached a university language support pathway program that had partnered with a third-party international student recruitment and support corporation. I was interested in knowing whether they needed an investigation or analysis to improve the quality of IGS support in their graduate pathway program. They offered many ideas. However, what they ultimately shared with me was a concern about supporting IGSs who would eventually transition into the university's Master of Public Health (MPH) program, as this particular group's enrollment numbers had increased in recent years. Additional conversations with the key informants in the pathway program, who informally polled their faculty peers, revealed student acculturation and language difficulties. These difficulties included student

challenges comprehending course assignment instructions, meeting faculty expectations for participation, and using their still-developing English to speak, listen, read, and write. The graduate pathways faculty sought answers to the question: "How can we better prepare and support our IGSs who are transitioning into the MPH program?"

Answering this question, though, also meant speaking with other stakeholder representatives. So, my next step was to reach out to an administrator in the university's School of Public Health. After describing the investigative question that arose from my conversations with the pathway staff and faculty, I asked the administrator a similar question: "What would the Master of Public Health program like to know about supporting their IGSs?" The administrator's answers to this question mirrored those of pathway faculty and staff. Additionally, the administrator sensed a mismatch in expectations between faculty and students for participation in collaborative classroom tasks and for meeting standards of academic integrity that are inherent in U.S. graduate school culture.

According to pathway and MPH stakeholders, two overarching factors—language and culture—seemed to be recurring themes of transitional challenges experienced by IGSs in the MPH program. Indeed, most international students must negotiate adaptations while transitioning to higher education in the United States. These adaptations can include acquiring and applying the linguistic knowledge of English for graduate study in the United States and acclimating to the cultures of the United States in general and the U.S. graduate school context specifically. This type of acculturation has been shown to be a major transitional experience for international students (Brunsting et al., 2018;

Dentakos et al., 2017; Kettle, 2017; Simpson et al., 2016; Smith & Khawaja, 2011; Wu et al., 2015).

At this particular university, services exist to support international students with these adaptations, predominantly within the institution's Office of Global Engagement, which includes a partnership with the third-party international student recruitment corporation. This, in turn, has resulted in a pathway program. Pathway programs, sometimes referred to as gateway or bridge programs, are a frequent feature of such partnerships uniting institutions of higher education, academic English language programs, and third-party international student recruitment corporations (Winkle & Algren, 2018). Pathway programs provide academic avenues for international students who perhaps do not meet university admission criteria for direct entry into post-secondary disciplinary programs. The third-party corporations recruit international students and then coordinate academic, linguistic, logistical, and extra-curricular support with the pathway program before and as the students matriculate into their degree programs. Through this joint venture, the English language and pathway program provide holistic support to undergraduate and graduate international students from recruitment to degree completion (Winkle & Algren, 2018). Thus, at this university, broader systems are already in place for international student support. However, it appears that closer investigation is needed for support at the micro-level—at the point of IGS transitions into the MPH program.

Thus, for my dissertation, I proposed to investigate challenges and support of IGSs in an MPH program at this university. To improve the success and retention of IGSs in the MPH program, it was important to identify the transitional challenges preliminarily

reported by both the pathway program and the MPH. Research to identify those challenges involved gathering data from all stakeholders: international students, the MPH program, and the pathway program faculty and staff. It was critical to include international students, both those admitted directly into the MPH program and those matriculating from the pathway language support program. These students have first-hand knowledge and perceptions about their transition experiences and will be primary beneficiaries of the suggested actions resulting from my research. Additionally, it was important for me to gather the perspectives regarding assets and challenges of IGSs from both programs: the pathway program and the MPH program.

Specifically, I invited those who work directly with IGSs, such as faculty and certain staff and administrators, to share their perspectives. Obtaining the perspectives of all three groups was critical because the perspectives represented diverse vantage points of the research problem[1] about the transitional challenges IGSs experience in the MPH program. After I triangulated the perspectives of these three groups, a precise picture of the experiences and participation in the MPH program emerged. As a result of this study, proposed suggestions should benefit these stakeholders, including those who work in supporting international students for other graduate programs at the university, as well as individuals who conduct development curricula for faculty who work with an increasingly diverse student population.

[1] While social science norms may dictate that we make clear what problem our research is trying to solve, I do not view the challenges or hurdles of international students or of those who work with them as "problems" in the negative, deficit-focused conceptualization of the word.

Purpose and Research Questions

The purpose of this study was to identify challenges faced by IGSs as they transitioned into the MPH and provide suggestions for student support primarily to the MPH program and the pathway program. My goal with this dissertation was to provide actionable items as suggestions to the stakeholders. A secondary goal was that findings from this study might offer insights about university-wide support services and graduate programs in public health at other universities in the United States.

The following research questions provided direction for this dissertation:

Research Question 1: What academic tasks are challenges for IGSs in the MPH program, according to MPH faculty, pathways faculty and staff, and IGSs?

Research Question 2: How do IGSs experience challenges in the MPH, according to MPH faculty, pathways faculty and staff, and IGSs?

Research Question 3: What support would be beneficial to IGSs in the MPH, according to MPH faculty, pathways faculty and staff, and IGSs?

Research Question 4: Based on the challenges of IGSs in the MPH and the suggested support, how can IGS challenges in the MPH be minimized?

The Preprint Dissertation: Rationale and Organization

Based on my dissertation research, I composed three preprint manuscripts ready for publication rather than the traditional dissertation chapters. I requested this option for several reasons. First, I believe that this study necessitated the viewpoints of all stakeholders, which led to a research story worthy of being shared with stakeholders. Various stakeholder audiences require varied foci and rhetorical situations. Preparing

three manuscripts allowed me to provide actionable suggestions derived from the research that are relevant to the varied stakeholders. I approached this dissertation as I have approached all my graduate coursework: with a purpose for making my work lead to actionable outcomes for improving support for diverse student populations. Second, composing three distinct, yet related, manuscripts from this research allowed me the privilege of scholarly mentors to guide me along the way and, also, insight into my own "disciplinary becoming" (Curry, 2016; Dressen-Hammouda, 2008) from doctoral student and candidate to doctorate-holding faculty. I appreciate the opportunity to structure my dissertation in this way.

What follows next in this General Introduction is a literature review for the study, including a theoretical framework that I used throughout to analyze and interpret the data. I have also included my methodology: my rationale for using mixed methods, an overview of my research protocols, and details on participants and recruitment. I conclude the General Introduction with a brief overview of the three article manuscripts. This General Introduction is aligned with the Graduate School's format for preprint/reprint dissertations as well as the guidance document composed by Dr. Spezzini. It is followed by the three preprint manuscripts, a Summary chapter, and the references used in this Introduction and the Summary, along with any necessary appendices.

Literature Review

With the research problem and purpose now identified, I explain the theoretical framework that guided this study. Then, I provide a review of literature relevant to the

entire dissertation. Each of the three preprint articles includes a variation of the theoretical framework and literature review detailed in this section, according to the purpose of the respective article. Therefore, the relevant literature in this section provides only a foundation for the study as a whole rather than a comprehensive review of what is covered in the resulting articles.

Theoretical Framework

One of the most critical tasks in planning a research project is for the researcher to locate the relationship between their personal worldview and the research problem and purpose. This worldview shapes the entire project, from theoretical framework through analysis and then to implications for stakeholders or fields of knowledge. Over the past few years, I have pondered the concept of the interconnectedness of our global society. I alluded to this concept in the Introduction to *Peacebuilding in Language Education* (2021) as I explained how Dr. Rebecca Oxford's (2013, 2014) framework of multiple dimensions of peace demonstrates "how activity that influences one dimension of peace—inner, interpersonal, intergroup, international, intercultural, or ecological peace—will have an influence upon other dimensions" (Harrison, 2021, p. 1). An apt analogy for this interconnectedness of society is the ripple effect caused by one small drop of water into a larger body of water; however small, there is an effect.

Applying this lens, I argued throughout my earlier years in this doctoral program that we should attempt to understand student ecologies by viewing an educational context not as isolated but rather as a community of humans connected to other humans, histories, past experiences, cultures, current individual situations, disciplinary content, and any

other factors that might make up a student's social ecology. With this understanding, I initially adopted Bronfenbrenner's Ecological Theory of Human Development (1979) for the design, analysis, and interpretation in this dissertation. This theory asserts that humans develop within systems, and those systems make up ecologies.

However, as I conducted a review of the literature on IGSs, I remained skeptical that an ecological theory would be robust enough to account for the relationships between and among IGSs and the IHE systems with which they interact. In my reading, I discovered that several scholars have applied versions of an activity theory, rooted in a constructivist approach (Vygotsky, 1978), to their investigations of international students in U.S. IHEs (Park & de Costa, 2015; Son, 2022; Straker, 2016, 2020). In my literature review, I learned specifically about Cultural-Historical Activity Theory (CHAT; Engeström, 2001), which is pragmatically utilized as an "interventionist framework" (Cong-Lem, 2022, p. 1106). In Engeström's (2001) view, activity systems interact with each other; include multiple voices; are dynamic rather than static yet situated within their historical contexts; and inherently include tensions between and among each other, with transformative results to individual systems.

Applying an activity theory to investigations involving multilingualism, intercultural relations, and learning is not a new approach. In a case study on international students' participation in focus groups, Straker (2020) applied an activity theory, arguing that "activity theory offers a theorized understanding of the relationship between participation and learning" (p. 1042). In an earlier conceptual work, Straker (2016) asserted that discussions of international student differences—or what they "lack" linguistically or culturally when studying in a foreign country—can risk a deficit

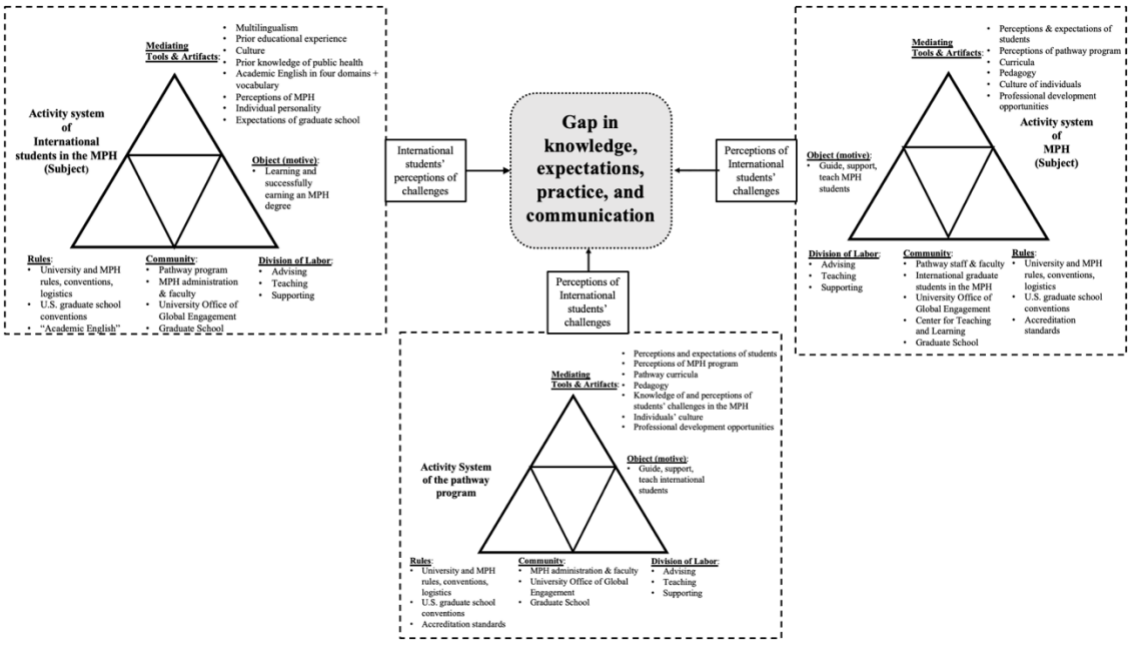
perspective of those students. Instead, Straker (2020) argued that the use of activity theory to investigate the activity of international students is an approach that is

> holistic and contextual: one that appreciates that many of the challenges international students face are generic to all students; that their participation will also be shaped by what others bring to the interaction; and that what participants in learning encounters hope to achieve will influence their experiences and behaviors. (p. 1042)

I felt that, by applying CHAT (Engeström, 2001) to the current study, space would be created for the pragmatic investigation of the activity systems of the IGSs in the MPH, the MPH program, and the pathway program. To identify the challenges of IGSs in the MPH program, I sought to identify the activity system components that might contribute to IGSs' challenges. These components included the Subject (the participants who perform the activity); the Object (the motive of the activity); Mediating Artifacts (physical tools, psychological concepts, external components such as writing, speech, or environment, or internal components such as mental representations and cultural practices); Rules (social norms of the activity); Community (other individuals and groups who are tangentially involved in the activity); and Division of Labor (how the community divides and performs their responsibilities). This identification of activity system components centered the potential for change on all three subject groups (the IGSs, the MPH faculty, and the pathway faculty and staff) rather than only on IGSs. These three interacting activity systems in this study are depicted in Figure 1.

Figure 1

Cultural-Historical Activity Theory Applied to Identifying IGS Challenges in an MPH Program



Note: Adapted from "Expansive Learning at Work: Toward an Activity Theoretical Reconceptualization," by Y. Engeström, 2001, *Journal of Education and Work*, *14*(1), p. 136 https://doi.org/10.1080/13639080020028747. Copyright 2001 by Taylor & Francis.

The gap between the three activity systems is a liminal one with social boundaries (knowledge, expectations, practices, and communication). In this "shared problem space" (Akkerman & Bakker, 2011, p. 147), the interacting systems should continuously work on complications and tensions to achieve coordination, reflection, or—ideally—transformation. With this interpretive theoretical lens, I conducted this case study with mixed methods to identify the perceived challenges IGSs have in the MPH and the supports needed to minimize those challenges. Investigating IGSs moving to and through a university MPH program required a robust framework, such as CHAT (Engeström,

2001), to address the dynamic social activities of IGSs and those who support them on university campuses. What follows is a review of relevant literature and a description of the methodology of this study.

Relevant Literature

Acculturation

One frequent difficulty for international students is acclimating to the school and community culture. Lantolf (1999) argued that acquiring the cultural aspects of a second language is often more difficult than acquiring the linguistic aspects. Differences in cultures of learning or educational systems often reflect differences in community cultures, such as variations in how a culture is individualistic or collectivist. For example, in Hofstede's (1997) study, the U.S. culture ranked first in individualism when compared with 52 other countries on a scale from individualism to collectivism. These variations are echoed in the culture of school because school cultures ultimately "mirror the culture, language, and values of those in power" (Colbert, 2010, p. 16). Students from a collectivist culture (or one that is less individualistic than the United States) may have difficulties in social interactions and interpersonal relations with instructors and peers in the United States (Ageyev, 2003). Developing intercultural competence and acclimating to the academic and cultural norms of U.S. education are important for international graduate student success (Simpson et al., 2016).

Although students may need to develop the intercultural competence for U.S. graduate study, they also may face other acculturative factors. Erichsen and Bolliger (2011) concluded that IGSs often experience both social and academic isolation. Students

in their study “felt closed off from those around them” (p. 318) and that the inherent need to work harder than their domestic peers resulted in little time or energy for socializing (Erichsen & Bolliger, 2011). Participants felt as if they did not belong in their programs and were not part of a learning community: “Participants all reflected on moments in the classroom when they felt as though they did not belong, sensed their differences and alternative perspectives were not recognized, were unwanted, or were simply ignored” (p. 318). Thus, acculturative factors may lead international students to perceptions that they do not belong at a U.S. IHE.

In addition to a negative perception of belonging, acculturative factors can also lead to stress. Vakkai et al.’s (2021) systematic literature review revealed that possible sources of acculturative stress include initial challenges upon arrival in the United States, age, language abilities, adjustment to an unfamiliar education system, acclimation to different social expectations, and negotiation of healthcare, finances, and family expectations.

In considering the challenges of IGS acculturation, IGSs cannot be treated as one homogenous group with similar needs and experiences; their linguistic, cultural, and educational backgrounds vary. Studies have been conducted with IGSs grouped by culture and language background in U.S. educational contexts. For example, Tummala-Narra and Claudius (2013) examined the acculturation experiences of Muslim graduate students in the United States. These researchers found that IGSs in their study shared diverse views and experiences related to their acculturation. Some were comfortable in negotiating their Muslim beliefs with U.S. mainstream culture, but others expressed discomfort. Many also experienced social isolation, discrimination, challenges

maintaining their religious practices, and difficulties in communication using their still-developing English skills. Although Tummala-Narra and Claudius (2013) focused on Muslim IGSs, their conclusions—that universities should acknowledge the unique acculturative challenges of IGSs and work to provide institutional support for IGSs—can be generalized broadly to also supporting IGSs from other backgrounds.

Likewise, George Mwangi et al. (2019) investigated the adjustment of international students from Africa in U.S. graduate programs. Many of the adjustment factors found by other studies were echoed in the findings from the George Mwangi et al. study; however, much was also specific to IGSs from Africa. For example, these students reported more feelings of marginalization–experiences in which they were the target of racism and perceptions of underrepresentation, compared to IGSs from other backgrounds. The authors drew upon a multilevel intersectionality theory to explain how IGSs from Africa often feel marginalized on U.S. university campuses not only because they are international students but also because they are people of color, sharing marginalization experiences such as those reported by Black students at predominantly White U.S. institutions. George Mwangi et al.'s findings underscore the need to view IGSs as a campus student population with nuanced characteristics and backgrounds rather than as a homogenous group.

Educational expectations of graduate students in the United States can be unfamiliar to IGSs, and adapting to different pedagogical practices can result in acculturation challenges. Mukminin and McMahon (2013) examined the narrative experiences of doctoral students from Indonesia studying in the United States. Their IGS participants reported challenges adapting to graduate academic workloads, U.S. graduate

classroom dynamics, unfamiliar student-faculty relationship practices, language challenges, and, albeit rarely, conflicts with faculty. Although these findings are predominantly related to academic factors, the authors asserted that differences between academic culture in Indonesia and the United States can potentially compromise student engagement.

Often, IGSs do not feel as if they are legitimate members of their U.S. graduate programs. For example, Cho (2013) investigated the lived experiences of three students from Korea studying in Master of Arts in Teaching English to Speakers of Other Languages (MA-TESOL) programs in the United States. Framing MA-TESOL programs as situated learning communities of practice (Lave & Wenger, 1991), Cho's (2013) study showed that IGSs in MA-TESOL programs often felt like illegitimate members of those programs, based on their international status as non-native English-speaking students. Helping IGSs feel more like legitimate members of their graduate program communities of practice requires awareness and support from disciplinary departments and institutions.

These studies provide evidence and implications for sociocultural factors that the IGSs, institutions, and disciplinary departments may need to negotiate to ensure successful outcomes in IGS adjustment to studying in U.S. graduate professional programs. The second dimension, language, often overlaps the sociocultural dimension, as will be discussed in the next section.

Language

English is an additional language for many international students; thus, using English in the United States can cause an academic challenge for IGSs. Andrade (2006,

2009) found that language proficiency, specifically strong writing capability, is correlated to academic achievement. In her 2006 literature review, Andrade concluded that many adjustment factors of IGSs were rooted in a "lack of language proficiency and cultural knowledge" (p. 143), linking academic and cultural adjustment to academic achievement. She posited that, although academic success of IGSs can be affected by students' personal adjustment skills, support from institutions broadly and faculty specifically is important to that adjustment. Andrade (2009) also investigated the views of international students and faculty regarding the influence of both English language proficiency and institutional support on IGS acculturation. Andrade concluded that although students and faculty were satisfied with international students' English language development and intercultural learning, international students could still benefit from language support and intercultural interaction. Thus, although the academic achievement of IGSs may be influenced by their academic and cultural adjustment, that adjustment can be mitigated with language and acculturation support from the IHE. DeJoy and Quarshie-Smith (2017) asserted that "how academic communities deal with resources and create responses to the language issues we face in our increasingly multilingual environments are . . . indicators of the level of commitment to the learning goals set for students and the institutional missions" (p. v). This strong statement puts the responsibility on IHEs to provide cohesive, cross-institutional support for multilingual students.

Support for IGS language and acculturation can be addressed by campus units within an IHE collaborating with pathway programs that are well-positioned to lead efforts to create cohesive institutional support for IGSs. Mallet et al. (2016) reported on a graduate pathway program that made pedagogical innovations to support new IGSs.

These pedagogical innovations included adjusting English language proficiency cut scores for entrance to and exit from the pathway program; creating an additional pathway course focused on the genres of students' disciplines; encouraging a culture of bilingualism/multilingualism as an additive and valuable resource across the campus community; and designing a graduate peer program for feedback on writing tasks. Interesting to note is that after successfully implementing and supporting these innovations, George Mason University joined forces with INTO University Partnerships, a third-party for-profit recruiting corporation similar to the one in this study (Mallet et al., 2016). Partnering with INTO University Partnerships allowed George Mason University's pathway program to maintain some of their pedagogical innovations and add more resources to support their growing international student population. Like Mallet et al. (2016), Ehlers-Zavala et al. (2017) explained how Colorado State University's contract with INTO University Partnerships led to additional support services for international students. This support was above and beyond what the university could previously offer on its own. This additional support included acculturation guidance, academic resources, personalized attention, extracurricular activities, and increased campus facilities access for international students.

English for Academic Purposes (EAP)

Sometimes, language challenges for IGSs are less a symptom of general English fluency and accuracy and more a result of unfamiliar discourse norms, like genre and vocabulary. Consequently, discipline-specific communication support may be difficult for institutions or pathway programs to provide or for IGSs to access. Thus, pathway

programs sometimes rely on teaching IGSs with an English for Academic Purposes (EAP) model. EAP is an area of study in the theoretical and practical application of engaging all learners in composing multiple academic literacy genres (Hyland & Shaw, 2016). The field of EAP espouses authenticity of classroom materials and texts, theory-based research and practice, interdisciplinarity of theories and methods, and relevance to the learners' needs (Hyland & Shaw, 2016). These defining concepts of EAP apply directly to supporting IGSs in professional graduate programs, such as the MPH.

Scholarship in EAP has addressed institutional support of IGSs. For example, in their chapter on assessing graduate communication support, Caplan and Cox (2016) asserted that

> while some graduate students learn to produce oral and written disciplinary genres relatively unproblematically, others inevitably struggle. This is especially evident for non-native speakers of the language of instruction . . . but may be equally true for native speakers who are less proficient users of academic language. (p. 22)

To support this assertion, Caplan and Cox reported on an international survey of graduate student literacy support in which they found that university-wide systems to support graduate student literacies were often fragmented and uncoordinated. Additionally, the authors found that sometimes those systems were also lacking in support for faculty and other professionals who work with both international and domestic graduate students.

Inarguably, institutional change is often necessary for improving IGS support. Bond's (2020) case study addressed the need for institutional policy change to create more campus-based collaboration for IGS support among EAP practitioners, language experts, and content experts who have insight into discipline-specific literacy tasks.

However, Bond's argument also asserts that the multilingualism of international students is still largely viewed from a deficit perspective by many individuals and institutions. She concluded that to remediate existing deficit perspectives, institutions should create broad policy and specific practical changes to instill an additive view of students' multilingualism.

Written literacy specifically has been addressed in scholarship regarding IGSs. Like Bond (2020), Curry (2016) opposed deficit perspectives of international students' languaging, specifically that of IGSs. She asserted that the binary distinction that scholars establish between domestic and international students "distracts us from considering deeper and more important issues of disciplinary enculturation and academic identity formation that graduate students undergo and the role of academic writing in this trajectory" (p. 78). Curry argued that all graduate students, domestic and international, have to adapt to the writing conventions of the genres practiced in their discipline and negotiate their identities as graduate student writers in their specific academic areas.

In addition to studies that call for changes in policy and campus culture, some studies have provided concrete strategies to address IGS challenges. Ravichandran et al. (2017) identified writing challenges of students and, also, strategies to address these challenges. Such challenges included grammar, vocabulary, text organization, cohesion, critical thinking, and plagiarism. The writing strategies suggested by these authors were student-generated, derived from the interviews with IGSs. In these interviews, IGSs reported wanting more feedback from faculty on written literacy tasks, specifically on conventions and not just on content. Students also reported a desire for the campus writing center to be more skilled at addressing the written literacy needs of graduate

students in general. These concrete strategies provide actionable items for institutions and faculty who want to improve IGS support.

Academic Integrity

In conjunction with discussions of acculturation and language is often the matter of intellectual property and norms of academic integrity, primarily as they relate to plagiarism in U.S. graduate school culture. Wolfersberger (2018) posited many reasons why international students might be accused of plagiarism or academic dishonesty. Of these reasons, many are typically centered on a Western perspective of copyright and intellectual property. For example, students may have developing academic writing skills, low second language proficiency, misconceptions of the task type they are composing, or unfamiliarity with specific Western cultural practices and definitions of plagiarism for academic contexts. Wolfersberger suggested pedagogical practices to help alleviate the misunderstandings that these second language writers may have regarding plagiarism. These suggestions for faculty include designing authentic writing tasks, requiring multiple drafts, leading classroom conversations regarding plagiarism, providing revision opportunities, and teaching specific skills such as inferencing for reading comprehension, summarizing, and paraphrasing.

Bloch (2012) also provided pedagogical strategies for addressing concepts of intellectual property with international students. Bloch argued that second language users as well as those who teach them and the institutions that serve them all have the responsibility for addressing honest academic practices. Concepts of academic integrity and intellectual property in regard to second language users are much more complicated

and nuanced than institutional policies can adequately address. Thus, all units and individuals in an IHE need to reach a consensus regarding how intellectual property is viewed and treated and then work toward clear educative practices for maintaining academic integrity.

Leonard et al. (2015) focused on the perceptions of graduate students in science, technology, engineering, and mathematics (STEM) regarding how academic integrity is both defined and handled by the university administration and faculty. Leonard et al. concluded that students overwhelmingly agreed that the academic infractions posited were at least moderately serious. Students also felt that the faculty were moderately effective at conveying expectations for academic integrity but that the institution's policy was inadequate. Thus, it seems that the students in this study understood the basic concept of academic integrity but may have been unclear as to how to put that understanding into practice to avoid being accused of plagiarism.

In my review of literature pertaining to sociocultural and language dimensions of IGS acclimation to U.S. graduate professional programs, many studies offered a secondary implication that the institutions and faculty should adjust to better support IGSs. Interesting to note is how all these studies arrived at this implication as an outcome of identifying and investigating challenges of IGSs. Few studies, though, have directly asked the question, "What can institutions do to better support IGSs?"

Conclusion of Literature Review

This study sought to identify IGS challenges and needed support in an MPH program. The scholars who have investigated the transition of international students to a

U.S. graduate school context played an important part in helping me design my study and interpret my findings. None of this scholarship, though, has addressed the challenges of IGSs in an MPH program by utilizing an activity system lens, which is the focus of this research study. The reality is that the IGSs in my study may have to negotiate cultural, geopolitical, personal (often diet and climate), academic, and language changes at the same time that they begin academic work in the MPH program. Thus, the goal of my study was to understand how these students experience acculturation difficulties in learning U.S. academic concepts or protocols and why they may not acclimate as easily or as quickly as institutions might expect. International students, especially graduate students, simply carry a lot of cognitive load, and that cognitive load will inevitably affect academic outcomes. Thus, much of the literature about IGSs cannot extricate the social and personal from the academic. This, in turn, requires that the researchers seek a more nuanced view of IGS experiences. This assertion influenced my methodological decisions, which I explain in the next section.

Methodology

Purpose, Philosophical Assumptions, and Research Approach

Purpose

The purpose of this study was to identify the challenges specific to international students in an MPH program and provide suggestions for student support to the MPH program, the pathway program, and campus-wide support services.

Philosophical Assumptions

"Knowledge of any type is somehow predicated upon previously known facts or proposed theories," according to Ulysse and Lukenchuk (2013, p. 6). Crucial to note here is that this dissertation's problem or area of inquiry was posed in my initial conversations with interested individuals in the pathway and MPH programs and that the goal of solving this problem was that I provide some suggestions for improved support. Thus, a pragmatic research approach seemed the most logical choice for this inquiry. Pragmatism is, in short, a way for us to find solutions to problems rather than a way to declare truth. As such, it is often used in educational inquiry because of its philosophy of connecting theory with practice. Peirce (1966) claimed that pragmatism is rooted in doubt:

> The irritation of doubt causes a struggle to attain a state of belief. I shall term this struggle inquiry…. It is certainly best for us that our beliefs should be such as may truly guide our actions so as to satisfy our desires. (p. 126)

The pathway faculty and staff at the site of this study have theories and experiences about how best to prepare international students for a graduate professional program. The MPH faculty and administrators have their own discipline-specific pedagogical best practices for teaching their content to a diverse student population. IGSs themselves have their own expectations and strategies regarding their challenges and needed support in the MPH. As the researcher, I, too, have my own ideas regarding how best to support IGSs. Pragmatic inquiry, however, gave me the rationale and methods to reconcile these various views on the initial problem and arrive at practical, actionable suggestions for IGS support.

Research Approach

Because I chose a pragmatic approach to inquiry, I had a full array of qualitative and quantitative research methods as options for answering my research questions (Cohen et al., 2018; Teddlie & Tashakkori, 2009). Cohen et al. (2018) suggested that a pragmatic research approach can lend itself naturally to mixed methods:

> The research focuses on framing and answering the research question or problem, which is eclectic in its designs, methods of data collection and analysis, driven by fitness for purpose and employing quantitative and qualitative data as relevant in answering the research question or problem, and in which the researcher employs both inductive and deductive reasoning to investigate the multiple, plural views of the probe and the research question. (Cohen et al., 2018, p. 34)

In other words, with a pragmatic philosophical lens, the best methods for this study were whatever methods worked to answer the research questions.

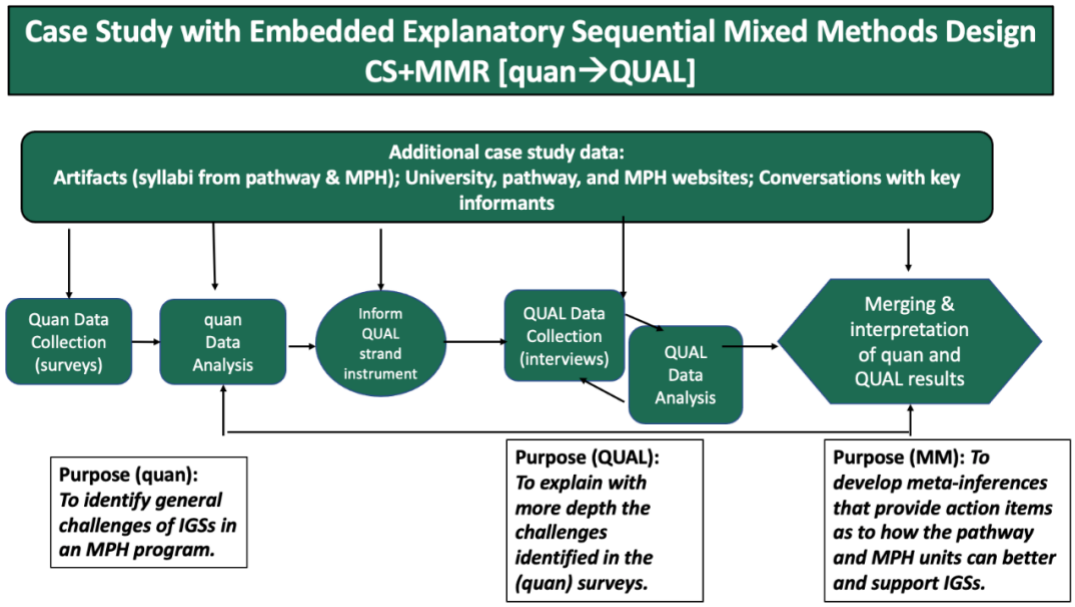
To answer the overall research question (What are the challenges and needed support for IGSs in an MPH program?), I needed to gather all viewpoints to have the most complete and informed view of the problem. Each entity held valuable information pieces to solve the puzzle. To identify IGS experiences in the MPH program, I gathered the viewpoints of the IGSs themselves, the MPH faculty and administrators, and the pathway faculty and staff.

The best research approach to identify perceived challenges of IGSs in an MPH program and provide all stakeholders with suggestions for potential support of IGSs was a case study with an embedded explanatory sequential mixed methods design (denoted as CS-MMR, [quan→QUAL]; Cook & Kamalodeen, 2020; Guetterman & Fetters, 2018). I

chose a case study approach to allow examination of the phenomenon in depth within its unique, real-world context (Yin, 2018). This particular phenomenon was the perceived challenges of IGSs within the MPH context, represented by interactions within the activity systems as shown in Figure 1. Mixed methods research is defined as research that combines elements from both quantitative and qualitative approaches in order to gain insight to an inquiry that is both broad and deep (Johnson et al., 2007). Embedding a mixed methods approach within the case study allows the research questions to direct the choice and timing of methods in a way that most appropriately and usefully answers the research questions (Johnson & Onwuegbuzie, 2004). The CS-MMR [quan→QUAL] design, depicted in Figure 2, was the best fitting approach to garner a more complete understanding of IGS challenges and needed support than a solely qualitative or quantitative approach.

Figure 2

Case Study with Embedded Explanatory Sequential Mixed Methods



Design

Note: Adapted from J. W. Creswell and V. L. Plano Clark, 2018, *Designing and Conducting Mixed Methods Research* (3rd ed.), p. 119. Copyright 2018 by Sage.

This dissertation's explanatory sequential design involved collecting quantitative data first via surveys, then explaining the results with in-depth qualitative data derived from interviews, and finally examining the artifacts. The initial, quantitative phase of an explanatory sequential design serves to identify patterns, features, and comparisons that can then be further explained by conducting qualitative research (Cohen et al., 2018). In order to gather generalizations from all three entities or populations, I conducted surveys, which comprised Phase 1, the quantitative strand of my research.

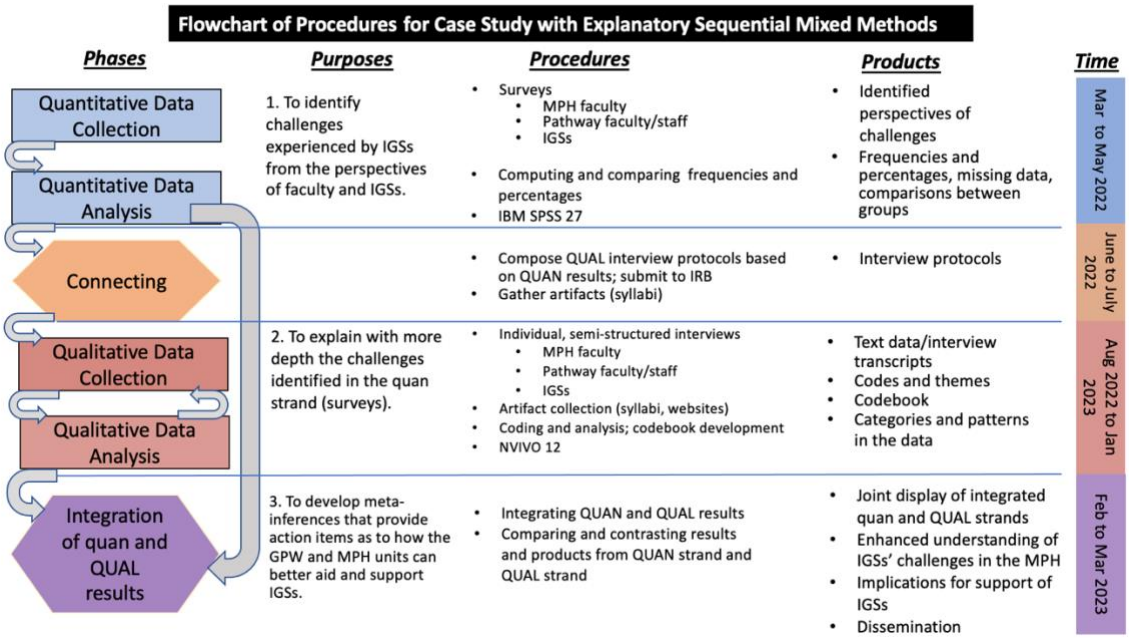
The purposes of the surveys were to identify via a large number of participants the areas of challenge for IGSs in the MPH and to provide direction for the subsequent

qualitative strand. Results of the surveys informed the development of semi-structured interview protocols, each unique to the three stakeholder groups, to gather a deeper, more nuanced explanation of the identified challenges and needed support. The notation for the sequence of methods is quan→QUAL, with the capital letters denoting the greater emphasis on the qualitative strand, the theoretical drive of the study (Morse & Niehaus, 2009).

Following the quantitative strand, I conducted the qualitative strand, which was Phase 2 of the study and was comprised of semi-structured interviews with participants from the three stakeholder groups. Three points of integration (Schoonenboom & Johnson, 2017) occurred in this mixed methods design. First, I recruited participants from the Phase 1 surveys to participate in the Phase 2 interviews. Second, I built the semi-structured interview protocols from the patterns, comparisons, and themes that arose from my analysis of the Phase 1 surveys. Third, I integrated the results of both strands to observe meta-inferences about IGS challenges and needed support. Figure 3 shows how these strands evolved and how the resulting integration occurred.

Figure 3

Study Flowchart



Note: Adapted from "Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice," by N. V. Ivankova, J. W. Creswell, and S. L. Stick, 2006, *Field Methods, 18*(1), p. 16 (https://doi.org/10.1177/1525822x05282260). Copyright 2006 by Sage.

Figure 3 shows the overall study design, primarily the mixing of the two methods or strands of data collection in the transition from Phase 1 to Phase 2 and again with the synthesis of all meta-inferences at the end of Phase 2.

Methods and Analysis

The research questions for this dissertation were, again, as follows:

Research Question 1: What academic tasks are challenges for IGSs in the MPH program, according to MPH faculty, pathways faculty and staff, and IGSs?

Research Question 2: How do IGSs experience challenges in the MPH, according to MPH faculty, pathways faculty and staff, and IGSs?

Research Question 3: What support would be beneficial to IGSs in the MPH, according to MPH faculty, pathways faculty and staff, and IGSs?

Research Question 4: Based on the challenges of IGSs in the MPH and the suggested support, how can IGS challenges in the MPH be minimized?

In order to answer these research questions, I conducted this case study with explanatory sequential mixed methods in three phases.

Phase 1: Quantitative Strand

Because my research questions involved gathering the views of all three stakeholder groups, I needed to gather broad data from as many participants as possible. Thus, I chose to conduct surveys for Phase 1 of this study. Surveys are used to collect information from a subset of a population to solve a problem or answer a question (Dillman et al., 2014; Fowler, 2014). Surveys usually result in numerical data that can be statistically analyzed, and it is hoped that the results can be generalized to the sample's population (Fowler, 2014). The specific research question for Phase 1 was as follows:

Research Question 1: What academic tasks are challenges for IGSs in the MPH program, according to MPH faculty, pathways faculty and staff, and IGSs?

In Phase 1 of this dissertation study, I employed anonymous Qualtrics surveys to ascertain the views of all IGSs in the MPH, the MPH faculty and administrators, and the pathway faculty and administrators regarding IGS challenges and support needs in the MPH program. The sampling frames matched the populations being surveyed, and

traditional purposive sampling was used, meaning that each individual in the sampling frame had an opportunity to participate (Teddlie & Tashakkori, 2009). In order to reach participants for each of the three entities, I relied on key informants from the MPH and the pathway program.

Survey questions were closed-ended with some open-ended questions to allow participants to provide a brief narrative explanation. Three types of data—factual, behavioral, and attitudinal—can be gathered from questionnaires or surveys, according to Dörnyei (2010). Although each group of participants was presented with a different survey, all surveys began with factual questions to ascertain demographic and contextual information. Then, the surveys proceeded to primarily attitudinal questions about attitudes, views, opinions, and beliefs. A few behavioral questions (i.e., what participants do or have done) were also included in each of the survey protocols. These survey protocols are in Appendices A, B, and C.

Dillman et al. (2014) noted four types of error that can be present in surveys: coverage error, sampling error, nonresponse error, and measurement error. The authors also explained that the best way to reduce survey error is to employ a Total Survey Error framework. Their assertion is that researchers often focus on one source of error to the neglect of other sources of error. A Total Survey Error framework allows a researcher to reduce sources of error to the fullest extent possible while adhering to realistic funds, time, and other constraints. In this study, coverage error was reduced as much as possible by including all possible participants in emailed invitations for participation. Sampling error was reduced by accepting all volunteers in a given stakeholder group who had

responded positively to the sampling frame, or by randomly selecting from participant volunteers in other stakeholder groups.

Nonresponse error was one of the error sources I tried to minimize. Nonresponse error refers to a survey's response rate and to the possible bias of those who may choose to respond (Dillman et al., 2014). Without a large number of responses (n = 100) for each group, meaningful statistical interpretations could not be guaranteed. Before I began this study, I knew that the sampling frames did not include enough possible respondents to compute inferential statistics. Additionally, responding participants (IGSs, pathway faculty and staff, MPH faculty and administrators) might have been more invested or interested in the topic than those who did not participate, perhaps providing less moderate views. Thus, I could not necessarily generalize findings to the populations. I maximized response rates for the survey as much as possible by including a concise explanation in the email invitation regarding the important purpose of the study; by providing clear instructions for accessing the survey; by ensuring a clean, easy-to-navigate survey in Qualtrics; by composing the survey with a design that ensured efficiency for the participants; and by keeping the length of the survey as short as possible.

I also needed to minimize measurement error in Phase 1. Measurement error includes a wide range of ways in which survey respondents provide accurate and relevant answers to the questions posed (Dillman et al., 2014). In designing the questions for the survey, I attempted to reduce measurement error by consulting similar surveys in the literature, by considering the rhetorical situation of each survey (purpose and audience as well as my positionality as the researcher), by critically interrogating the structure and response options for each question, and by requesting peer review from my committee.

Fowler (2014) suggested asking multiple questions per concept as a way to improve validity. However, if I had included more questions, the surveys would have been substantially longer with some questions perhaps seeming redundant to participants. Increasing the length and adding redundancy might have reduced measurement error. Yet, by doing so, it would have increased nonresponse error as participants might have grown weary of the length or the questions and abandoned their participation. Thus, any additional questions would not have reduced the Total Survey Error by any appreciable amount. Consequently, I purposefully composed the surveys to be as short as possible and then asked my committee and key informants for support in piloting the survey to ensure clarity.

Analysis of the survey data was straightforward, as the small data sets did not allow inferential computations. However, descriptive statistics were useful in providing context, in comparing between and among groups of participants, and in providing themes to investigate further in Phase 2.

Phase 2: Qualitative Strand

After I analyzed survey data from the first phase of the study and identified themes of challenge and needed supports, I composed interview protocols for the three stakeholder groups. The interview protocols (Appendices D, E, and F) comprised Phase 2 of this study and served to provide an in-depth explanation of the survey results. The research questions for this phase were as follows:

Research Question 2: How do IGSs experience challenges in the MPH, according to MPH faculty, pathways faculty and staff, and IGSs?

Research Question 3: What support would be beneficial to IGSs in the MPH, according to MPH faculty, pathways faculty and staff, and IGSs?

The initial goal for this phase was to conduct five interviews with stakeholders from each of the three populations (IGSs, MPH faculty and administrators, and pathway program faculty and staff) for a total of 15 interviews. A final question at the end of the survey phase, Phase 1, asked participants if they would be willing to participate in a follow-up interview. If they agreed, they clicked a link that took them to a second, one-prompt Qualtrics survey in which they could submit their email address for follow-up contact. This link from the first survey to the second survey ensured anonymity in that the previous survey's answers were disengaged from identifying email information in the second Qualtrics survey. Sampling via participant volunteering was purposive (Teddlie & Tashakkori, 2009). Only three pathway faculty and staff indicated on the survey that they would be willing to participate in a subsequent interview, so I invited and interviewed all three. However, more than five MPH faculty and administrators volunteered, so I randomly chose five to invite to participate in an interview.

From the Phase 1 surveys, four IGSs volunteered for a follow-up interview. However, after I conducted interviews of these four IGSs and analyzed their interview data, I realized that the data had not reached saturation. Thus, I asked the key informant in the pathway program to identify additional IGSs in the MPH. I invited the IGSs from this informant's list, which led to four additional IGSs who volunteered to participate in a follow-up interview.

The interviews were held individually on Zoom at each participant's convenience. When I scheduled the interview with each participant, I also emailed them a document

with the consent information. At the start of each interview, I reviewed the consent information and asked the participant if they had any questions. After a given participant had consented to participate, I began the interview and initiated the audio recording. This audio recording allowed me to take reflective notes during the interview regarding my thoughts about the participants' responses rather than attend to writing down the general ideas being conveyed. After I conducted each interview, I electronically submitted the audio file to Rev.com for secure transcription. Following transcription, I reviewed each transcript and checked it against the recording for accuracy.

In addition to interview data, another source of qualitative data was artifacts such as syllabi and program guides that I requested from the MPH and pathway program informants. These artifacts were information-rich sources (Saldaña, 2016), providing insight about the curricula and pedagogy of the MPH and the graduate pathway program activity systems. Curriculum guides and syllabi are Mediating Tools and Artifacts of the activity systems, which might have influenced the experiences of the international pathway students in the MPH.

Data analysis in qualitative research occurs simultaneously with data collection (Hatch, 2002; Merriam & Tisdell, 2015; Patton, 2015). In other words, researchers constantly analyze as they collect data, perhaps narrowing the study, fine-tuning the instrument, recording first impressions as fieldnotes, revisiting the literature as field analysis uncovers new aspects, or beginning to think of possible codes for analysis.

Taking into consideration the iterative nature of qualitative analysis, I coded Phase 2 interview data for emergent themes. Merriam and Tisdell (2015) argued that "coding is nothing more than assigning some sort of shorthand designation to various

aspects of your data so that you can easily retrieve specific pieces of the data" (p. 199). To interpret these data, I analyzed the transcribed interviews using two rounds of coding: *a priori* coding and descriptive coding (Saldaña, 2016). For a priori coding, I anticipated general themes regarding IGS challenges and needed supports, including the themes that arose in the Phase 1 surveys. I used descriptive coding for a second round of coding. Different themes emerged, but all focused predominantly on the participants' perceptions of IGS challenges and needed support in the MPH program.

Denzin and Lincoln (2018) acknowledged that "qualitative evaluators are walking a fine line in arguing about exactly how trustworthy their data are in light of how trustworthy they think data generally can be" (p. 881). Nonetheless, qualitative researchers can take measures to ensure that their results are as credible and valid as possible. Some of these strategies include researcher reflexivity, negative or discrepant case analysis, triangulation, and member checking (Merriam & Tisdell, 2015).

Throughout this study, I checked the validity of my researcher lens in two ways: using reflexivity and analyzing negative or discrepant cases. Merriam and Tisdell (2015) defined researcher reflexivity as "how the researcher affects and is affected by the research process" (p. 249). As an EAP instructor and a doctoral student in the Educational Studies in Diverse Populations doctoral program, I began this project with my own views on how IGSs should be supported throughout their transition into a professional graduate program. However, I was an outsider to the MPH context, and I did not have an emic view of IGS experiences as do the pathway faculty and staff. In short, there was much I did not know in this particular context. Thus, I approached this study and these data as objectively as possible. Patton (2015) explained that

reflexivity reminds the qualitative inquirer to be attentive to and conscious of the

> cultural, political, social, linguistic, and economic origins of one's own perspective and voice as well as the perspectives and voices of those whom one interviews and those to whom one reports. (p. 70)

From this state of awareness, I formulated the survey and interview questions with ongoing feedback from committee members who are experts these contexts and are, thus, more knowledgeable than I am about those aspects. Additionally, during data analysis, I critically examined any data that was discordant to other data or to my original hypotheses. I set aside my personal preconceived notions as much as possible during the analyses of Phase 1 and Phase 2 so that those biases did not blind me to important information.

Researcher reflexivity also involves triangulation and requires that the researcher examine what the participants know and how they know; what the audience knows and how they know; and what the researcher knows and how she knows (Patton, 2015). Patton's triangulation model includes screens of culture, age, gender, class, social status, education, family, political praxis, language, and values. During instrument development and data analysis, I kept these aspects in mind regarding the participants, my potential audiences, and myself as a researcher. By screening my instrument development and data analysis with these factors, I was able to employ some reflexivity through triangulation to make the results of my study as valid as possible. Additionally, I sought peer/mentor examination from my committee members to maximize validity through external lenses.

I also ensured validity as much as possible by using the lens of the participants. To that end, I offered participants an opportunity to member-check their transcribed interview before I started the coding process (Merriam & Tisdell, 2015). This validation

gave participants an opportunity to change or clarify anything they may have said during the interview or that may have been a transcription error.

In addition to semi-structured interviews, I analyzed artifacts in the Phase 2, qualitative strand. When analyzing the course syllabi, I used descriptive coding to discover emerging themes and then versus coding to compare the MPH syllabi with the pathway program's course guides (Saldaña, 2016). In an iterative fashion, I triangulated my analysis of syllabi and course guides with the themes of challenge and support that emerged from my analysis of the interview data.

Phase 3: Mixed Methods Integration

Inherent in mixed methods research is the integration of the data from the multiple methods employed (Bryman, 2006; Maxwell et al., 2015). This study included several points of interface, or points during the study where the quantitative and qualitative data were mixed or connected (Morse & Niehaus, 2009). The first point of connection was during the sequential mixed methods sampling procedure (Patton, 2015) at the end of the Phase 1 survey. Here, participants from Phase 1 were asked to volunteer to participate in Phase 2, which meant that the participants from Phase 1 would ideally be the same in Phase 2. This was ideal for the surveys of the MPH faculty and administrators and for the pathway faculty and staff; those participants in the Phase 2 interviews were recruited through the Phase 1 surveys. However, because the IGS Phase 2 interview data did not reach saturation, I recruited four additional IGS participants with the help of the key informant in the pathway program. Because those additional four IGSs had not completed the survey, they were not part of Phase 1.

The second point of interface was the development of the Phase 2 interview protocols from the Phase 1 results (Greene et al., 1989). The themes that emerged from the surveys served as points of discussion in the semi-structured interviews. The third point of interface occurred at the end of Phase 2. At that point, I integrated the qualitative inferences from Phase 2 with the quantitative inferences from Phase 1 in order to have a greater understanding of IGS challenges and needed support in the MPH.

I have already addressed Phase 1 (quantitative) and Phase 2 (qualitative) for validity and trustworthiness. However, validity concerns also existed for the overall mixed methods study in Phase 3. In addition to limitations and possible errors in individual phases or strands of a study, Creswell and Plano Clark (2018) identified three other threats to validity for explanatory sequential mixed methods research. The first threat is a potential inability to accurately identify important patterns, themes, and features of the quantitative phase for informing the qualitative phase. To avoid this threat, I carefully cleaned and descriptively analyzed the quantitative data in IBM's SPSS 27 for Mac. These descriptive statistics led me to the themes to further investigate in Phase 2. The second threat is when a researcher might fail to explain contradictory quantitative data with the ensuing qualitative methods. In my preprint articles, I was careful to note when discordant data occurred within and between strands and stakeholder groups. The third threat is failing to connect the quantitative results to the qualitative follow-up. In each of the preprint articles and in the Summary to this dissertation, I provide an integrated Discussion section that connects the quantitative results to the qualitative results. These three threats can be alleviated by ensuring that qualitative instruments are derived from a close and careful study of the quantitative results. Having an open mindset with respect to the findings can help reduce these threats.

The integrated findings in Phase 3 resulted in the identification of challenges specific to IGSs in the MPH program. Triangulation of this knowledge with relevant literature and artifacts led to actionable suggestions for student support that are detailed in the preprinted articles and in the Summary of this dissertation.

Ethical Considerations and Limitations

Ethical principles for this study were prioritized. This study fell under the university's Institutional Review Board (IRB) Exempt Category 2 for two reasons. First, this study involved only survey and interview procedures with human participants over the age of 18 years. Second, the identification of participants was either anonymous (surveys) or kept confidential (interviews). Prior to beginning research, I acquired IRB approval for an exempt study (Appendix G) and followed all ethical considerations for human studies research. For the revised interview protocols, I filed an IRB amendment, which was also approved.

Like most studies, the results of my study are contextual and lack full generalizability. Because contexts differ, the results of this mixed methods study cannot be applied without augmentation in every other context. However, perhaps other researchers could use the design or instruments of this study in their own context and with their own students. To facilitate transferability, I employed several strategies such as using thick description of my particular study context and maximizing the variation of my participant sample as much as possible within the study parameters (Merriam & Tisdell, 2015).

Organization of the Dissertation

In this General Introduction to the dissertation, I have explained the purpose, rationale, and research questions of the dissertation; the theoretical framework as well as relevant literature and the research gap for the dissertation; and the study's methodology. What follows in the next three sections are descriptions of the three preprint manuscripts. Each manuscript was composed as an article for a specific journal.

In considering journals for manuscript submission, I relied on my own knowledge and experience gained from conducting the research for this dissertation. Thinking rhetorically, I anticipated potential audiences and purposes for having three separate manuscripts. By doing so, I hoped that my research efforts would lead to implications being applied in these fields.

First, I felt that my research could inform practitioners in U.S. IHEs who rely on research-based implications regarding educational practices. Therefore, I will submit the first manuscript, "Pathway International Graduate Students in a Master of Public Health Program: A Case Study Analysis of Activity Systems" to *AERA Open*. This article, compared to the other two articles, is the most comprehensive overview of this study. *AERA Open* is an open-access, online journal, which means this comprehensive view will reach a broad audience interested in research-based practices.

Second, another audience for my research findings is faculty who teach IGSs in graduate public health programs, similar to this study's MPH program. During my research in public health for this dissertation, I relied heavily on the peer-reviewed journal, *Pedagogy in Health Promotion* (*PHP*), published by Sage. The aim of this journal is to publish articles that link the scholarship of teaching and learning with best practices in pedagogy for health education specialists. Thus, I will submit the second

article, “International Students’ Experiences in a U.S. Master of Public Health Program: Acclimating to a “Different Pattern” to *Pedagogy in Health Promotion*. This article reports only on qualitative data from the IGSs, thus providing an opportunity for instructors in public health programs to have a better understanding of the needs of IGSs pursuing an MPH.

Third, I will submit the article, “Addressing International Graduate Students’ Experiences with Plagiarism in the United States: A Case Study with Explanatory Mixed Methods” to the *Journal of Diversity in Higher Education*, published by the National Association of Diversity Officers in Higher Education. This third article focuses on IGS challenges with plagiarism specifically, a topic of initial concern for the MPH faculty. This journal is appropriate for this specific topic because the journal focuses on the experiences of underrepresented communities in IHEs. Because plagiarism is socially and culturally constructed, the audience of the *Journal of Diversity in Higher Education* may be interested in how to support international students on their campuses in matters of academic integrity and plagiarism.

What follows are preprints of my three articles prior to adjusting them to fit the author guidelines for the targeted journals. My dissertation then concludes with a Summary, the References, and the Appendices.

PATHWAY INTERNATIONAL GRADUATE STUDENTS IN A MASTER OF PUBLIC HEALTH PROGRAM: A CASE STUDY ANALYSIS OF ACTIVITY SYSTEMS

by

MELINDA S. HARRISON AND SUSAN K. SPEZZINI

In preparation for *AERA Open*

Format adapted for dissertation

Abstract

This article reports on a case study investigation of the academic challenges faced by international graduate students (IGSs) pursuing a Master of Public Health (MPH) at a major research university in the southeastern United States. Specifically, I sought to identify the challenges of these students as they transitioned from an English language pathway program into and through a university MPH program. I conducted semi-structured interviews of the IGSs, MPH faculty, and pathway program faculty and staff to establish a rich understanding of IGS challenges based on perspectives from these three stakeholder groups. To further contextualize stakeholders' perceptions, I analyzed curriculum guides and syllabi. As I interpreted the data, mismatches emerged regarding outcomes for each of these three stakeholder groups. In an attempt to resolve these mismatches, I explored ways to reduce challenges facing IGSs in the MPH program. My explorations led to implications for these three stakeholder groups which include revising the curricula, improving communications across departments, and providing more support for IGSs from within a given department and across the university.

Keywords: international graduate students, acculturation, pathway program, Master of Public Health, graduate student support

From 2021 to 2022, the number of international graduate students[2] (IGSs) studying in the United States increased 17% (Institute of International Education, 2022). Such increased diversity at the graduate level often requires additional support to help IGSs adapt to intersecting academic, cultural, and linguistic expectations of U.S. graduate programs. Addressing these challenges is important for the internationalization efforts of a given institution because the success of IGSs affects all aspects of institutional academic and logistic planning (Mallet et al., 2016). To address the need for increased support, advocates of international students have called for increased attention to student experiences (Glass et al., 2015). Scholars have identified best practices to ensure international student success and retention in the United States, such as the role of a supportive advisor (Curtin et al., 2013; Rice et al., 2009), the need for language socialization at writing centers (Okuda & Anderson, 2018; Simpson, 2019), and opportunities for institutional policies surrounding cultural and linguistic diversity (Bond, 2020). However, institutions of higher education (IHEs) often fall short in providing holistic cultural, linguistic, and pedagogical support for international students and the faculty who teach them (DeJoy & Quarshie-Smith, 2017). This gap in holistic institutional support for IGSs can result in a systemic fragmentation of support structures, creating tensions for students and faculty.

Recognition of fragmented support for IGSs at one university led to the current study. In 2020, a graduate pathways program serving international students expressed the need for an investigation of the challenges experienced by those students in the Master of

[2] For the purpose of this study, international students are defined as "students who undertake all or part of their higher education experience in a country other than their home country or who travel across a national boundary to a country other than their home country to undertake all or part of their higher education experience" (Institute of International Education, 2023).

Public Health (MPH) program, a concern that existed prior to the emergence of the COVID-19 pandemic in March 2020. MPH faculty also recognized challenges such as students adapting to the workload and the pacing of assignments. These two stakeholder entities—the graduate pathways program and the MPH—although well-intentioned in supporting international students, lacked time to research these specific challenges and explore best ways to support IGSs.

Published scholarship has not specifically addressed challenges of IGSs as they transition into a professional graduate program. Studies published from 2010 to 2019 focus primarily on the needs of international undergraduate students and do not necessarily consider the unique needs of IGSs. Such studies also do not focus on students in underrepresented fields, nor do they acknowledge the cultural and linguistic diversity of the international students' backgrounds (Krsmanovic, 2021). Moreover, although scholarship exists on how international undergraduate students navigate the transition from pathway programs to their respective majors, similar research is scant at the graduate level. To fill this gap, the current study strives to identify the challenges of international pathway students in an MPH program and the support that these students need to be successful. To meet this goal, I employed a theoretical model that identified IGS challenges resulting from a mismatch in expectations between different stakeholder groups. Based on the findings, I also offer suggestions for institutional support that might minimize this mismatch.

Theoretical Framework

International student pathway programs in U.S. universities are designed to assist international students in meeting the academic and English language requirements necessary for full admission to undergraduate or graduate programs. Pathway programs can serve as a bridge into university programs for international students who may not meet the direct entry requirements of the university but still wish to pursue their education in the United States. Students will often enroll in one or two language support courses in the pathway program before or while they begin academic courses in their chosen degree programs.

To identify the challenges of IGSs as they moved into an MPH program with initial support from a pathway program, I employed the Cultural-Historical Activity Theory (Engeström, 2001), one of several sociocultural theories rooted in a constructivist approach (Vygotsky, 1978). Engeström's (2001) iteration of Activity Theory is pragmatically utilized as an "interventionist framework" (Cong-Lem, 2022, p. 1106). Activity systems interact with each other; include multiple voices; are dynamic rather than static yet situated within their historical contexts; and inherently include tensions between and among each other (Engeström, 2001).

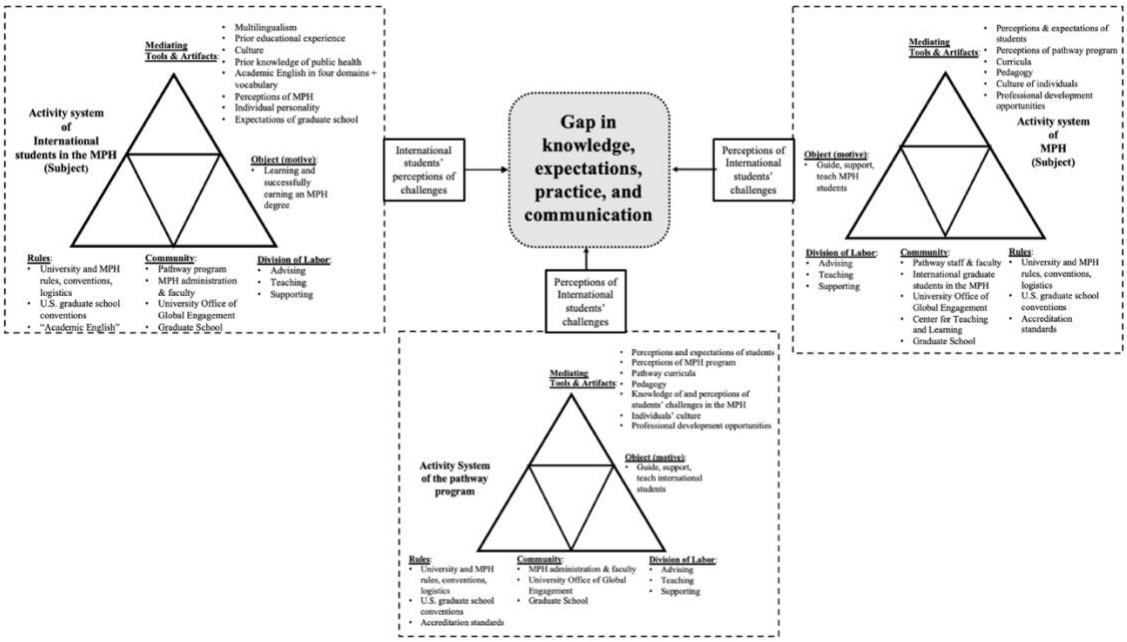
Applying Cultural-Historical Activity Theory has advantages for investigations involving multilingualism, intercultural relations, and learning. This theory has served as a lens to investigate international students' educational participation (Straker, 2020) and the IGSs' use of writing strategies (Park & De Costa, 2015). Additionally, utilizing this theory as a lens for investigating IGS experiences shifts the view from a deficit

perspective of what these students lack to a holistic asset perspective of their contexts and strengths (Straker, 2016).

Applying Cultural-Historical Activity Theory to the current study was ideal because this theory was robust enough to address the dynamic social activities of international students and of the individuals who support them. To identify the challenges of IGSs moving into and through the MPH program, I identified how these challenges were affected by contributing activity system components: Subject, Object, Mediating Artifacts, Rules, Community, and Division of Labor (Engeström, 2001). Identifying these components also centered the potential for change on various components within the activity systems rather than only on IGSs. Figure 1 depicts the three interacting activity systems analyzed in this study.

Figure 1

Cultural-Historical Activity Theory Applied to Identifying IGS Challenges in an MPH Program



Note: Adapted from "Expansive Learning at Work: Toward an Activity Theoretical Reconceptualization," by Y. Engeström, 2001, *Journal of Education and Work*, *14*(1), p. 136 https://doi.org/10.1080/13639080020028747. Copyright 2001 by Taylor & Francis.

As shown in Figure 1, the gap between activity systems serves as a "shared problem space" of knowledge, expectations, practices, and communication. Ideally, the systems work in this space to resolve complications and tensions with the goal to achieve coordination, reflection, and—ideally—transformation (Akkerman & Bakker, 2011). In my case study, using this interpretive theoretical lens allowed identification of the perceived challenges of IGSs in the MPH and the necessary supports to reduce those challenges. To situate this framing, I provide a review of relevant literature regarding IGSs, graduate pathway programs, and MPH programs.

International Graduate Students

Recent research on academic challenges of international students is extensive in scope because challenges are often influenced by various complex, yet dynamic, sociocultural contexts. Frequent research topics include linguistic barriers (Heng, 2019) and cultural adjustment (Elturki et al., 2019), particularly acculturation stress (Koo et al., 2021; Yan & Sendall, 2016). Researchers have also investigated specific challenges, such as how international students adapt to unfamiliar classroom dynamics and Western academic critical thinking expectations (Heng, 2023), and how they acquire disciplinary knowledge, adjust to the academic workload, and strive to understand class lectures (Elturki et al., 2019). Extensive research has also looked at international students' social adjustment, including the influence of social support (Yan & Sendall, 2016), deficit perspectives, stereotypes of international students (Canagarajah, 2002; Kubota & Lehner, 2004), and non-academic challenges such as visa and immigration concerns, funding, housing, and homesickness (Sharma, 2018).

IGSs have unique challenges compared to international undergraduate students (Brooks-Gillies et al., 2020; Lawrence & Zawacki, 2018; McLeod & McClellan, 2022; Spratling & Valdovinos, 2022). Scholarship specifically on IGSs is relatively limited compared to scholarship on other student groups (Krsmanovic, 2021). Research paints a complicated picture of IGS experiences, often focusing on academic barriers and cultural adjustment (Andrade, 2006, 2009; Kumi-Yeboah & James, 2014), challenges in online programs and courses (Erichsen & Bolliger, 2011; Karkar-Esperat, 2018), and marginalization or discrimination at IHEs in the United States (Sato & Hodge, 2016).

Good communication skills are important for graduate students (Simpson et al., 2016). Hence, several studies have focused specifically on IGS writing—both strengths and challenges. For example, Andrade (2006, 2009) focused on IGS language proficiency as related to academic achievement, specifically writing skills and acculturation challenges. Sharma (2018) argued that IGS academic writing success is dependent on confidence, competence in English, context awareness, composition and rhetorical skills, and content knowledge. Wette and Furneaux (2018) found that IGSs need genre awareness, knowledge of global text structure, strategies for choosing and synthesizing sources, audience awareness and authorial identity, and practice in critique and argumentative writing.

Studies on international student support in IHEs rarely focus specifically on IGSs. Rather, scholarship has focused on how to support all international students without a delineation of undergraduate and graduate (Krsmanovic, 2021). Still, this scholarship provides valuable insight. For example, scholars have argued that supporting international students involves creating a sense of cultural diversity on university campuses (Glass et al., 2015); encouraging a sense of belonging and engagement for international students (Chen & Razek, 2016; Kettle, 2017); constructing a connected support infrastructure across campus units (DeJoy & Quarshie-Smith, 2017); employing cross-cultural communication education to support international student adjustment (Turner et al., 2022; Young & Shartner, 2014); and incorporating advocacy for IGS writers (Sharma, 2019). A common theme across these studies is that the support for international students should not be the responsibility of just one campus unit; it should be a responsibility shared by all sectors within an IHE. Although the academic success of

international students can be affected by students' personal adjustment skills, their adjustment depends on support from the institution broadly and the faculty individually.

Graduate Pathway Programs

History and Context of Pathway Programs

During the first decade of the 21st century, private for-profit corporations began to contract with IHEs as third-party vendors who would recruit international students and then, in partnership with university academic language programs, administer programmatic support (Winkle & Algren, 2018). Academic language programs in IHEs have long been considered an entry for international students who want to study in Western university contexts (Grosik & Kanno, 2021). Pathway programs, sometimes referred to as gateway or bridge programs, are a frequent feature of these partnerships. Pathway programs provide academic avenues for international students who perhaps do not meet university admission criteria for direct entry into an undergraduate or graduate disciplinary program. The third-party corporations recruit international students and then coordinate academic, linguistic, logistical, and extra-curricular support with the pathway program as the students matriculate into their degree programs. Unlike organic, institutionally grown pathway programs, third-party pathways are often varied and embody the ideologies, values, and perspectives of the third-party corporations, influencing everything from recruitment and admissions to the academic instruction of international students (Winkle & Algren, 2018).

Pathway programs are often facilitated by university academic English language programs, which traditionally have focused on preparing students in IHEs for

standardized English language tests or university study through the English for Academic Purposes (EAP) model (Elturki, 2023). EAP is an area of study in the theoretical and practical application of engaging all learners in composing multiple academic literacy genres (Hyland & Shaw, 2016). The field of EAP espouses authenticity of classroom materials and texts, theory-based research and practice, interdisciplinarity of theories and methods, and relevance to the learners' needs (Hyland & Shaw, 2016). Tasked with developing academic support for students' English language and intercultural communication needs (Winkle, 2014), pathway programs often rely on EAP principles to design curriculum that is relevant to students in building their academic and intercultural communication knowledge.

Complications of Pathway Programs

Recently, the complications of third-party pathway programs in IHEs have been well-documented (Redden, 2018a, 2018b; Winkle & Algren, 2018). For graduate pathway programs specifically, these complications include designing curricula for students from varied language backgrounds who are matriculating into varied disciplinary programs. When designing curricula, graduate pathway programs must consider the linguistic background and capabilities of students. Some IGSs arrive from post-secondary education that has been conducted in English, especially students from postcolonial countries like India and Pakistan in which English is an additional language. For these students, disciplinary content has been taught using the English language, but the English language itself is rarely taught or assessed (Airey, 2016). In Pakistan for example, English language fluency and accuracy can be completely disassociated from the use of

English to learn in content areas, and both students and faculty often code-switch for instruction by mixing English with other languages such as their home languages (Mahboob, 2017). Therefore, IGSs whose prior education has been conducted in English may vary widely in their fluency and accuracy in using English for academic purposes. Other students may arrive with very little experience in using English if the language of instruction has been a language other than English. Additionally, the third-party corporation's influence over recruitment and admissions may mean that recruited students are underprepared for the university graduate program or even the pathway coursework if the corporation negotiates lower entrance examination scores with the university (Winkle, 2014). These variations in learners' backgrounds require pathway programs to thoughtfully adjust pedagogy for meeting learners' needs.

Pathway programs are also tasked with preparing international students to matriculate into various disciplinary programs. Unfortunately, traditional English as a second language curricula can fail to include specialized tasks that would support students in learning to communicate within their disciplines, relying instead on general writing skills that are irrelevant to the genres and conventions used in the disciplinary writing communities in which IGSs participate (Elturki, 2023; Min, 2016). Many EAP scholars (Pessoa & Mitchell, 2019; Swales, 1990; Tardy et al., 2020) have asserted that a relevant EAP curriculum needs to be authentic, theoretically grounded, and interdisciplinary. It must also include the teaching of genre-awareness and knowledge in the students' disciplines. Thus, when designing EAP curricula, pathway programs should consider students' disciplinary writing tasks and needs. Without an effective EAP

foundation, pathway programs risk creating a larger gap between what IGSs are prepared to do and what graduate programs expect and require those students to do.

In addition to designing appropriate curricula, pathway programs must also contend with their possible marginalization in IHEs. Despite the professionalization of the fields of English language teaching and of program accreditation, these academic language programs, their faculty, and the international students have often been marginalized in IHEs (Grosik & Kanno, 2021; Winkle, 2014). This deficit perspective of pathway programs and international students might be unintentionally perpetuated in part by content faculty who have language expectations for students that they perceive are not met by the pathway programs. Pathway programs may also be viewed from a deficit perspective by individuals who are biased and uninformed, or who operate with a monolingual mindset, creating further marginalization and lack of support for IGSs at IHEs. Such a deficit perspective directly affects the support provided to these students by discouraging collaborative cross-institutional support for pathway programs, which, in turn, can lead to even greater marginalization (Ehlers-Zavala, 2018). The reality is that the faculty in the pathway and English language program are experts on international students and intercultural communications and are well-positioned to serve as assets to disciplinary areas across campus.

Finally, IGSs in pathway programs may be unsure of their position at the university, in that they are not yet full-fledged members of their graduate disciplinary program (Ehlers-Zavala, 2018). Essentially, they are forced to be "third-space strategists" (Benzie, 2015, p. 21), negotiating their identity as both a graduate student and a pathway student. Thus, pathway programs should advocate for and support IGSs in their identity

negotiations. However, marginalization of pathway programs in IHEs may make it challenging for programs to advocate and support IGSs across the institution.

Literature on graduate pathway programs for IGSs demonstrates complications of these programs as well as their potential to serve a valuable supportive role for IGSs and for faculty across campus. However, to rise to this challenge, pathway programs need to adopt EAP pedagogical and support strategies that are authentic, theoretically based, interdisciplinary, and relevant. To ensure that an EAP curriculum is relevant for IGSs, pathway faculty need to know the communicative needs that are expected of these students (Feak, 2016). Pathway programs and their faculty should reflect on innovating curricula and augmenting instructor knowledge to better serve IGS communicative needs (Min, 2016). They need to focus on a broad range of academic literacy skills, beyond just basic English linguistics, and differentiate pathway instruction for undergraduate and graduate students (Dooey, 2010).

MPH Field and Curricula

Literature is scant regarding pedagogy in U.S. schools of public health. What little is available has been published mainly in response to the changed standards enacted in 2016 by the main accrediting body, the Council on Education for Public Health (CEPH). The increase in publications on public health pedagogy has signaled a priority in best practices for teaching public health competencies. The CEPH's accreditation criteria guide schools of public health to focus student learning on competencies that more accurately mirror the practice of future graduates in this inherently interdisciplinary field (Diener-West, 2019; Lang et al., 2017; Mackenzie, 2018; Sullivan & Galea, 2019b;

Valladares et al., 2019). This interdisciplinarity and the evidence-based criteria for mastery of core competencies require a unique pedagogy, one that acknowledges the process of learned competencies with critical thinking. This pedagogy also needs to be innovative, evidence-based, engaging, and responsive to student diversity as well as actively supporting faculty for adjusting to the changed and changing nature of their roles in schools of public health (Sullivan & Galea, 2017, 2019b). This type of critical pedagogy is especially crucial in an MPH, which is the degree most sought by those who wish to practice in the field of public health rather than work in academia (Pack & Wykoff, 2019).

Publications regarding public health pedagogy have responded to these curricular changes in the field. *Teaching Public Health* (Sullivan & Galea, 2019a) was published to fill a gap regarding best practices and strategies to teach public health. Other work has focused on orientation programs to introduce students to online learning in public health (Alperin et al., 2020) by incorporating team-based learning to meet core CEPH competencies, especially those that prepare learners to work collaboratively (Lang et al, 2017). Other work has focused on writing in public health (Mackenzie, 2018; Valladares et al., 2019). Writing in public health is fundamental, both to learn and to practice. Valladares et al. (2019) emphatically stated, "Writing *is* public health. It is what makes public health *public*" (p. 94, authors' italics).

Absent from all these publications, however, is a focus on international students in U.S. schools of public health. The index of *Teaching Public Health* (Sullivan & Galea, 2019a) offers three references to international students, none of which provides specific strategies that are culturally responsive for teaching public health to students from

cultures and countries outside of the United States. Thus, a gap exists in published resources regarding the teaching of IGSs in U.S. schools of public health.

The challenges of international students, particularly at the graduate level, and effective pathway program support are complicated and nuanced. Adding to this complexity is the uniqueness of the MPH as a graduate program that is professional and practical in nature rather than traditionally academic. Because of this, the MPH requires a thoughtful and tailored EAP approach rather than a general academic literacies approach. This study attempts to clarify challenges experienced by IGSs in a university pathway program as they progress into an MPH. I investigated the most critical perceived challenges of IGSs who had participated in a pathway program as they matriculated into the MPH program, and I sought to discover potential ways to reduce those challenges. The following research questions shaped my inquiry:

> Research Question 1: What are the most impactful challenges for international pathway students in the MPH, according to MPH faculty, pathway faculty and staff, and the students themselves?
>
> Research Question 2*:* How can the MPH, the pathway program, and the university improve support for international pathway students in the MPH?

Methodology

This study was part of a larger case study with sequential mixed methods (Guetterman & Fetters, 2018). In this larger study, I surveyed and interviewed MPH faculty, pathway faculty and staff, and MPH students and, also, collected artifacts. For both the larger study and this smaller study, I adopted a pragmatic philosophical

approach, in that I chose the combination of methods that would best help me answer the research questions (Johnson et al., 2007). For the smaller study reported in this journal, I wanted to obtain an in-depth view of the activity systems examined in the larger study (Engeström, 2001). To conduct an in-depth investigation regarding the interaction of these three activity systems within their real-world context, I chose a case study design for this smaller study (Yin, 2018). Within this case study design, I triangulated the qualitative data gathered in the larger mixed methods study. The entire study was approved by the university's Institutional Review Board.

Setting

The research study site was a large, regionally accredited R1 university (Doctoral University with Very High Research Activity). In Fall 2022, this university reported that 6.8% of its 20,000 enrolled students were from countries outside the United States. The university's MPH, accredited by the CEPH, reported 590 total graduate students, of which 62 (9.5%) were international students. This university's MPH degree is a practice-based degree that prepares graduates to enter the public health workforce rather than work in academia. The core curriculum and electives in the MPH prepare students to meet core public health competencies per CEPH criteria.

At this study site, most academic support services for international students are housed within the university's Office of Global Engagement, which partners with a private third-party international recruitment and support corporation. Academic support through the Office of Global Engagement can take many forms, including the English language program and, most relevant to this study, the pathway program. New IGSs in

the MPH can enter through one of three avenues: direct entry; an integrated master's program within the pathway program for supplemental language and cultural support during the first semester of graduate study; or the two-semester graduate pathway program courses that meet concurrently with graduate content program courses for additional language support. Support in the pathway program, including the integrated master's program, can take the form of courses, workshops, and the Office of Global Engagement's tutoring programs, all directed or taught by faculty and staff holding master's degrees in Teaching English to Speakers of Other Languages. These support resources are consistent with those provided by other U.S. IHEs with third-party pathway programs (Ehlers-Zavala, 2018; Mallet et al, 2016).

Participants and Sampling Strategies

I utilized sequential mixed methods sampling to recruit participants for the larger study (Patton, 2015). Each of the three surveys in my larger study ended with a question inviting volunteers to participate in a 20-minute interview. Twelve MPH faculty volunteered to be interviewed, and I used random sampling (Merriam & Tisdell, 2015) to select five. In the other two stakeholder groups, three pathway program faculty and staff and also four IGSs volunteered to be interviewed. To reach data saturation among the IGSs, I added four students who were recruited by the pathway program's key informant, resulting in eight IGS participants. After I received assent from these participants, I conducted individual recorded interviews, each of approximately 20 minutes in length, on the university's Zoom platform, and then uploaded the interview recordings to Rev.com for transcribing. Appendix A shows IGS interviewee profiles and reference labels.

Relevant to this participant sample is that all international pathway MPH students happened to be females from India or Pakistan with prior education in English-medium schools, especially at the secondary and tertiary levels.

Artifact Collection and Analysis

The first source of data included artifacts such as syllabi and program guides that were provided by key informants from both the MPH and pathway program. These artifacts are information-rich sources (Saldaña, 2016), providing insight about the curricula and pedagogy of the MPH and the graduate pathway program, which were the activity systems being studied. Curriculum guides and syllabi are Mediating Tools and Artifacts of these activity systems that might influence the experiences of the international pathway students in the MPH.

My analysis was guided by the theoretical framework of activity systems (Figure 1). To analyze the course syllabi and guides, I used descriptive coding to discover emerging themes and then utilized versus coding—an analysis tool that can show divergent perspectives between stakeholders (Saldaña, 2016)—to compare the MPH syllabi with the pathway program's course guides. In an iterative fashion, I triangulated my analysis of syllabi and course guides with the themes of challenge and support that emerged from my analysis of the interview data.

Interviews and Analysis of the Interviews

The second source of data for this case study was one-on-one semi-structured interviews conducted with participants who had volunteered from each of the three stakeholder groups. Based on the themes of the larger study's quantitative survey strand and the existing literature in the field regarding IGS academic challenges, I developed a semi-structured interview protocol for each of these stakeholder groups. Using these protocols as guides, I asked pathway and MPH faculty about their perspectives of IGS challenges and additional supports they might need to guide these students. The interview protocol for the international pathway students in the MPH sought students' perceptions of their challenges and explored additional supports they felt were needed for them to be successful in the MPH.

I shared transcribed interviews with the participants for member checking (Merriam & Tisdell, 2015). After participant review, I uploaded transcripts to NVivo (QSR International) for analysis. I first read through each transcript and then returned to the two research questions, which asked about students' challenges and needed support. For the first cycle of coding, I used descriptive coding aligned with these questions (Saldaña, 2016). Information regarding challenges and additional needed support was coded first by participant group (international pathway students, MPH faculty, and pathway faculty and staff) to see how the emerging themes would map onto the respective activity systems. I then used a second cycle of descriptive coding to categorize the data by challenge or desired support. Because I had developed the interview protocols based partially on the larger study's survey results, specific questions inherently generated material that led to certain codes. For example, interview questions regarding IGS perceptions of challenges inherently resulted in codes for IGS challenges.

Findings

I investigated both research questions regarding international pathway students' challenges and needed support. In this section, I use illustrative descriptions and examples to explain findings of the artifact and interview analyses.

Findings from Program Artifact Analysis

I chose to gather and analyze curriculum guides from the pathway program and syllabi from the MPH program because these documents might help provide insights into student experiences in these courses. As Mediating Tools in the respective activity systems, these documents were key in helping understand the full context of the situation of the IGSs as they moved to and through an MPH program. My comparison of these two curriculum documents spotlighted gaps between how pathway students were prepared for professional graduate work and what a professional graduate program like the MPH would require those students to do.

Pathway Program Curriculum Guides

Unlike typical university syllabi, the pathway program's course curriculum guides are not provided to the students, nor do these guides include the names of the individual course instructors. The curriculum guides appear to be standardized instructions of what and how instructors should teach during the term and are explicitly intended for instructors rather than students. Such guides provide student learning outcomes, materials, pacing tables, and brief descriptions of assessments. The four language

domains (speaking, listening, reading, writing) are usually taught in a separated manner rather than integrated. Course goals and student learning outcomes are provided in dedicated sections of the curriculum guides. Most of the learning materials consist of textbooks. When supplementary materials (e.g., sample readings, handouts, and outline templates) are listed, they are noted as either required or optional. Student writing activities include composing argumentative academic essays and summaries, evaluating and using online sources, incorporating sources according to academic style guides, avoiding plagiarism, and editing for lower-order concerns like grammar and sentence structure. Assessments for writing include short texts (approximately 500 words) such as summary-response reactions to a reading and are assessed for content and organization, citation, language, and grammatical errors. The assessments for speaking focus on pronunciation and presentation skills during prepared and spontaneous speech acts. Listening assessments measure comprehension and note-taking during listening tasks.

MPH Core Syllabi

The key informant in the MPH provided sample syllabi from 2021 for the six core courses analyzed in this study. Unlike the pathway curriculum guides, the MPH syllabi are written for students. These syllabi provide students with the following information: the course name and goals, the professor and each section's teaching assistants or instructors, and course delivery (online or in-person). The syllabi also provide the CEPH standards and MPH competencies as student learning outcomes that are aligned with assignments and assessments. Typical of university syllabi, each sample MPH syllabus includes a course schedule listed by weekly module, and most include the topics,

activities, due dates, and corresponding learning objectives. Readings and activity details are not specifically listed on many of the syllabi. Instead, students are directed to consult the university's course management system for specific reading and assignment details. Of the analyzed course syllabi, five syllabi indicate that no textbook is required (some provide an optional textbook), and the sixth course—*Quantitative Methods in Public Health*—lists a free online text provided on the website of the Center for Disease Control.

Comparing the Pathway Program Curriculum Guides with the MPH Core Syllabi

Through my analysis, I discovered that these documents are different genres. The pathway's curriculum guides are intended as teaching templates for an audience of pathway instructors, whereas the MPH syllabi are intended as communication about the course for an audience of MPH students. Although these documents have different purposes and audiences, what they convey about the unique pedagogy used by the two programs is beneficial for understanding IGS experiences in the MPH courses, especially if these students participated in one or more of the pathway courses.

First, the pedagogies of these programs differ in course delivery and learning platform. The pathway courses are delivered in-person with supplemental virtual workshops offered online. In contrast, the MPH core courses are offered as either online sections or in-person sections. However, assignments in both online and in-person MPH courses are submitted through the university's course management system, which is the main connector between students and instructors.

The programs are also different in terms of materials. The majority of the pathway courses require textbooks plus perhaps a few authentic texts. These required textbooks

are described on publisher websites as primarily grounded in learning and teaching English as a second language rather than in using authentic materials and tasks in an EAP curriculum (Hyland & Shaw, 2016). In contrast, materials in the MPH program are primarily documents like case studies, surveys, and websites that are used as authentic texts (i.e., used by practitioners in the field) for students to apply course concepts.

Additionally, the pathway program and MPH program differ in learning outcomes and literacy tasks. In the pathway courses, the student learning objectives are language-driven with the goals typically listed as "Students will be able to" followed by a communicative task based on whether the domain is reading, speaking, writing, or listening. However, in the MPH, student learning objectives are connected to the content of public health and to the CEPH goals and objectives. Students are asked to identify, apply, analyze, synthesize, evaluate, and create. Furthermore, the writing tasks of the pathway courses are described as "summary-responses." According to one pathway course guide, these written texts are expected to be from 300 to 350 words each, and international pathway students are asked to write only two "summary-responses" for most of their semester courses. In contrast, throughout a semester public health course, students in the MPH write longer texts of varied authentic genres. These writing tasks in the MPH are more frequent than the writing tasks in the pathway program. In the MPH, literacy tasks replicate public health career work, such as writing an opinion-editorial to advocate for a policy that will improve the health of a specified community; developing models; designing public health interventions; reviewing health surveys; and designing messaging campaigns targeted to specific audiences. These MPH literacy tasks are consistent with the authentic writing tasks described by Mackenzie (2018).

Essentially, the pathway curriculum should be a preparation for students to succeed in their graduate program. However, the differences in curriculum and pedagogy as described in this comparison of the pathway and MPH curricula may create dissonance for IGSs. Among these three activity systems (pathway, MPH, and IGSs), I explored the gap in knowledge and expectations in the context of the following interview findings.

Findings from Semi-Structured Interviews

I analyzed 16 interview transcripts from which many themes emerged for IGS challenges and needed supports. What follows are the most frequent themes of challenge and desired support from the perspective of each stakeholder group.

International Pathway Student Interviews

Challenge: Acclimating to the "Pattern of Study." In interviews, the most frequently recurring challenge expressed by international pathway students was the challenge of acclimating to the "pattern of study" in the MPH. Participants remarked on adjusting to the pacing and workload of the MPH, acclimating to online delivery and the technology required for courses, and adapting to the academic English language used in IHEs in the United States.

Regarding the pacing and workload of the MPH, several international pathway students described how graduate assignments in the United States are shorter and more frequent than they were accustomed to. That study pattern—shorter assignments completed more frequently—took time for students to adjust. Student-4 compared her prior education experience in India with her current MPH experience: "The pattern of

studying, the pattern of teaching is quite different from my home country." Students described their prior education as following a system with infrequent, yet longer, summative assessments and very few shorter, formative assessments. Student-7, educated in Pakistan, remarked on feeling as if she could not keep up with the frequent assignments in the MPH:

> [In Pakistan], we need to do midterm, final term, and viva [oral comprehensive exam] question. But here, every week evaluation, every week assignment, every week quizzes. In the start, I was thinking, I will not keep up with that because it's too much…. It was very tough for me.

She continued to describe her feelings from early in the program: "I feel in the start, I feel I was so depressed. I was feeling then the workload is more than my capacity." International pathway students communicated that the larger number and increased frequency of shorter, formative assignments in the United States took time to adjust to because they had been accustomed to less frequent, longer assessments. In at least one student's view, this challenge was almost overwhelming.

Many participants explained that acclimating to online delivery and the technology required for courses also took them some time to get used to. Students remarked that because they were not used to the technology nor to a course management system, they were not sure where to find assignments and other materials. When I compared the MPH syllabi with the pathway curriculum guides, I found that the MPH relies on the university's course management system significantly more than the pathway program does. Thus, students may not have gained meaningful exposure to the course management system in the pathway courses. Student-7 explained how her unfamiliarity

with the course management system led to her missing several assignments in the MPH at the beginning of the semester: “And especially the Canvas things . . . because I missed a few tasks in the start because I was feeling difficulty to see my homework and my assignment on Canvas.” Students also described that in their previous education experiences, they completed and submitted assignments on paper with little, if any, reliance on technology. Student-4 explained the challenge of adapting to using the course management system: “I am not used to this online thing, doing my assignments completely on the laptop. I have more habit of pen and paper.” For these IGSs, adjusting to the online course delivery and assignment submission took time and was a notable challenge for them in the “pattern” of course delivery in the MPH program.

International pathway students described challenges with adapting to U.S. academic English language, especially with rate of speech and regional accents, even though their prior academic context used English for instruction. Student-3, from India, when asked how prepared she felt for the MPH program, described how she had difficulty adapting from “Indian English” to “USA English.” The rate of speaking in the United States, in this student’s opinion, is “very fast” and difficult to understand. Student-5, also from India, remarked that her fluency in English “is not that much good” but that it is “improving day by day,” indicating that this student was hopeful that her English fluency will improve with time. Several students noted that the accents of English were difficult to get accustomed to. Although all of these international pathway students were educated in English-medium schools in their home country, most described challenges with language in the U.S. educational context.

Support: More Support of IGS Needs. In interviews of international pathway students, the overarching theme emerged of a need for greater understanding of the IGSs. These students frequently expressed a need for such support. For example, students spoke about the need for more support early in the program from an academic advisor or someone who could help international pathway students acclimate to the logistics and expectations of the program, such as the course management system and the pattern of assignments. Student-2 was quite candid with her remarks:

> I feel like every international student need advising in a better way. I feel there is much confusion going on there, and I think they need to improve that because we don't know, like, anything. Zero…. We don't even know who to approach at the start.

Other students compared the support they received from the pathway program with the support they received—or felt they did not receive—from the MPH program. Student-6 suggested that more systemic support for international students across the university would be beneficial. She emphasized a difference in support from the pathway program compared to support from the university units outside of the pathway program. In her view, the faculty and staff outside of the pathway program do not understand the IGS struggles. Speaking for international students in general, she suggested that additional widespread acceptance and support of international students and their adaptations to U.S. academics would be beneficial to their success.

According to the interview data, international pathway students are most challenged with adapting to U.S. graduate school, including routines, workload, reliance on technology for course administration and delivery, and using academic English.

Although international pathway students provided many specific suggestions for needed support, most students related needing to have better academic guidance and understanding, especially early in the program.

Pathway Faculty and Staff Interviews

Challenge: Adapting to a New Educational Context. In interviews with pathway faculty, the theme of international pathway students adapting to a new educational context in the MPH emerged as the most frequent challenge. These pathway faculty saw adapting to online courses, adapting to the MPH workload, and feeling welcomed at the university as the greatest challenges faced by these students.

First, pathway faculty observed that international pathway students in the MPH are challenged with adapting to online courses. Pathway Faculty-2 spoke about IGS challenges with both the course management system and online courses, noting that pathway faculty and staff need to provide more support for students in online courses. Pathway Faculty-2 also mentioned that the pathway students in the MPH need help specifically because they are suddenly "thrown into" a new academic context with unfamiliar pedagogical practices that cause a high level of stress among these students.

Second, pathway faculty noted that international pathway students seemed to be challenged by adapting to the workload of the MPH. Pathway faculty, who have graduate degrees in Teaching English to Speakers of Other Languages, understand IGS challenges with adapting to the pattern of study in the United States. Pathway Faculty-2 explained that "The number of assignments is exponentially more than they're [international pathway students] used to." This faculty's observation echoes the experiences expressed

by the students. Pathway Faculty-2 also reflected on how the advanced degrees of some international pathway students did not ensure that they would acclimate easier to the U.S. educational context: “And even though some of them [international pathway students] are coming with medical degrees or other higher degrees, it’s still a change in the culture and the style [of learning].” This faculty referred to the cultural difference in schooling between the students’ prior education and their current experiences in the MPH. Pathway Faculty-2 linked this assignment overload to student stress:

> I think that’s part of the problem, is that they are overloaded, in terms of their course assignments. And it’s very stressful. I know for the public health students, in particular, they seem to be stressed more, sometimes more than the computer science and engineering students.

In interviews, the pathway faculty emphasized their view that international pathway students were overloaded and stressed in adjusting to the U.S. academic context, especially the number of course assignments in the MPH.

Finally, pathway faculty also described a potential barrier for international pathway students in acclimating to their new educational context. This barrier was related to the international pathway students’ feeling of belonging, or, rather, the lack thereof. Pathway Faculty-1 stressed this point:

> I do think our students have struggled to feel wanted or welcomed. I think that’s a huge difficulty…. I hear a lot of “Those international students.” You know, there’s a lot of blanket grouping together, sort of the capital T-H-E-Y, and I think it’s pretty strong…. I would say that at [this university], international students feel

> very much like second-class citizens in public health versus in any other degree at [this university].

Similarly, Pathway Faculty-1 acknowledged that international students in general feel as if they do not belong at the university and feel like "second-class citizens" in the MPH program compared to other programs at the university. This faculty member, an expert in supporting international students, asserted that the international students are often essentialized and discriminated against as a group rather than viewed as individuals with nuanced backgrounds and needs.

Support: Increased Resources. In interviews, pathway faculty and staff connected the IGS challenge of belonging on campus to the need for systemic campus internationalization. Pathway Faculty-1 explained the view that "It is worth the additional resources and time and growth and stretching that has to happen to internationalize a campus." For campus internationalization efforts to progress, pathway faculty mentioned the need for more resources. Such resources could include collaboration with university units outside the pathway program, including the MPH, to support international pathway students.

This theme of increased resources continued when I asked faculty specifically about a wish list for providing additional support for IGSs. For instance, Pathway Faculty-1 remarked on the need for additional personnel time. For example, this faculty member explained that someone with a background working with IGSs could attend the content courses and then assist the IGSs in assignment expectations. Pathway Faculty-1 noted the perceived need for additional personnel to serve as liaisons with the MPH program for the pathway students. Pathway Faculty-3 also described a need for increased

resources, but in the form of more contact hours with students to guide and prepare them with the "soft skills" and "academic skills" required by the graduate programs. The increased resources desired by these faculty are targeted for within the pathway program and, also, between the pathway program and other campus units. These faculty desire both time and personnel to support IGSs. They wish for more time with students for instructing them in everything from study skills with online courses to managing a different "pattern" of schooling to perhaps interpreting specific disciplinary expectations. They also wish for more personnel who are experts in supporting IGSs and who can help expand the pathway program's support infrastructure. The perceptions of these faculty regarding challenges faced by IGSs in the MPH largely mirror the perceptions of the international pathway students, such as the challenges in the MPH courses with adapting to the workload and to the reliance on technology.

MPH Faculty Interviews

Challenge: Written Academic English. In MPH faculty interviews, written academic English was the most frequently recurring theme related to IGS challenges in the MPH. For example, MPH Faculty-3 remarked on the sentence-level errors of IGS writing, saying that, in international student writing, "some of the grammar is a little bit wonky," as if the students tried to use a translation application. MPH Faculty-1 also noted sentence-level language concerns with IGSs in the MPH: "With the international students, it is subject-verb agreement. It is those types of nuts and bolts before you even get to anything beyond that." However, MPH Faculty-4 described a nuanced view of IGSs in the MPH, asserting that there is a difference in the writing of IGSs whose prior

education was conducted mainly in English and the writing of those whose prior education was in a language other than English: “The ones who are trained in sort of the British English style of writing, they’re fantastic. I mean, they can hit anything out of the ballpark.” In these interviews, MPH faculty shared that IGSs, at least those who did not have prior English-medium instruction, struggled with written English grammar and syntax.

Faculty also acknowledged that the international students improved over time with writing English. For example, MPH Faculty-5 noted improvement throughout a semester. She attributed that improvement, at least in part, to her process-based assignments and her continuous, scaffolded feedback on grammatical concerns to students at each stage of those assignments.

Support: Advanced Student Orientation and More Faculty Communication.

MPH faculty interviews yielded two primary themes for supporting IGSs: advanced orientation and more communication with the Office of Global Engagement. For example, MPH Faculty-2 remarked that IGSs in the MPH would benefit from acclimating to the MPH course content and U.S. academic English language well in advance of their arrival to campus. MPH Faculty-2 explained that, prior to arrival, incoming students could be pre-taught some basic MPH concepts in U.S. academic English via videos and pre-matriculation courses provided on the course management system.

Other faculty mentioned how the IGSs are at an even greater disadvantage if they happen to arrive late to campus (often because of delayed visa issuance). MPH Faculty-5 reflected on IGSs who arrive too late for on-site orientation:

> This was a major issue…related to visas, testing, coming in, all of those sorts of things. We had more than a handful of students who showed up Monday for a class who had arrived at 11:30 the night before and just hadn't been oriented to anything…. They didn't necessarily get the initial connection to a lot of the resources that were available to them.

In following up with this, MPH Faculty-5 suggested that the late arrival of IGSs could possibly be solved with advanced orientation. This faculty also described a desire for more communication with the Office of Global Engagement, the umbrella administration of the pathway program. MPH Faculty-5 also described how communication with the pathway program or others in the Office of Global Engagement could provide direct assistance to her and to the IGSs in her classes. Because the MPH faculty see the most critical challenge for IGSs as written communication in English, it stands to reason that MPH faculty would like support for IGS writing in English as well as advanced orientation for students.

Discussion

The triangulated findings for this case study are discussed using the theoretical framework of Cultural-Historical Activity Theory (Engeström, 2001).

Challenges of IGSs in an MPH Program

In their respective interviews, all stakeholder groups were asked about what they perceived as a challenge for international students in the MPH. Appendix B displays the main challenge theme and sub-themes from each of these three groups.

International pathway students and the pathway faculty and staff perceived that the students' main challenge in the MPH was acclimating to the educational context, which is consistent with published scholarship regarding international students and acculturation (Elturki et al., 2019; Koo et al., 2021; Yan & Sendall, 2016). For international pathway students, this theme encompassed the pace, workload, online course delivery and technology, and U.S. academic English. Pathway faculty and staff perceived a similar challenge; however, they also emphasized that, when outside of the pathway program, these students might feel unwelcome in other university settings, a concern addressed by Glass et al. (2015) and Kettle (2017). For the most part, the views of these three pathway faculty and staff aligned with those of the international pathway students regarding challenges in the MPH.

Although MPH faculty mentioned various perceived challenges, they shared a consensus about how the IGSs were challenged at using written academic English required by U.S. universities. Simpson et al. (2016) and others have described the unique challenges for all graduate students in adapting to the academic writing tasks of their disciplines. Several MPH faculty discussed relatively minor issues with IGS writing, such as subject-verb agreement and word choice, that would not necessarily hide the intended meaning of the written text. However, if indeed "Writing *is* public health" (Valladares et al., 2019, p. 94, authors' italics), then the local MPH faculty and the public health field at

large should accommodate the presence of multilingual student writers by allowing them opportunities to improve, as MPH faculty noted that these IGSs tend to do over time.

However, the comparison of pathway faculty and staff data with the MPH faculty data demonstrated perhaps the largest gap in conceptualizing IGS challenges within the MPH. Although the pathway faculty and staff considered IGS challenges to be adjusting to the new educational context—including workload, online course delivery, and feelings of belonging—the MPH faculty expressed that IGSs are primarily challenged with academic writing in the MPH. Essentially, the two entities have different viewpoints, as demonstrated not just by the data but also by the different curricula, goals, and academic tasks required by each program.

Desired Supports for IGSs in an MPH Program

In the interviews, students were asked what supports they needed to be more successful. The MPH faculty and the pathway faculty and staff were asked what supports they could provide to better meet the needs of IGSs. Appendix C displays the results from each of these three stakeholder groups.

The data from international pathway students show that they desire greater understanding and consideration of their positionality as graduate students in this MPH and within the university as a whole. Practically, they suggest increased attentiveness with academic advising and increased support across the university (i.e., beyond the pathway program). This finding is supported by Glass et al. (2015) and Kettle (2017) who addressed cross-campus support of international students. These authors stressed that inclusivity and intercultural communicative competence need to be ingrained in all

systems of the institution, not just in the units that specifically support international students.

The data regarding support from both the pathway faculty and staff and the MPH faculty are more aligned with each other: both of these stakeholder groups desire resources to better support IGSs. The pathway faculty and staff want increased time and personnel to address curricular changes and communication within academic areas across the university. The MPH faculty expressed how advanced orientation or onboarding of IGSs would help students acclimate to program expectations and technology before they arrive on campus. In addition, MPH faculty would like more communication with the pathway program and the Office of Global Engagement so that the faculty could access expert support when they need guidance or available resources to help them or their students. Unfortunately, time and personnel resources are usually scarce in IHEs.

Limitations

The limitations of this case study include its small sample sizes and the limited diversity of its participants. Although I attempted to reach data saturation in the interviews of international students, all of the participants were women from English-medium education backgrounds in Asian countries. Hence, these participants do not represent the voices of all international students in this MPH program. Additionally, only a few of the pathway faculty responded to my invitation to participate. Perspectives of more pathway faculty may have led to a more nuanced view of IGS challenges and needed support. Because of these limitations, this case study cannot be generalized outside of the local context of this MPH program and this university's pathway program.

Implications and Conclusion

To identify areas of academic challenges, I conducted this case study by examining artifacts from the pathway and MPH programs and by analyzing 16 individual interviews from three stakeholder groups. Of these interviews, 5 were with MPH faculty, 3 with pathway faculty and staff, and 8 were with IGSs. Findings revealed that the main academic challenge of IGSs in this MPH is adapting to the educational context. Engeström's (2001) activity theory was helpful with identifying implications from this study's data. The "shared problem space" (Akkerman & Bakker, 2011, p. 147) in the context of this study allowed the identification of ways in which all three activity systems can adapt to help close the gap in knowledge, expectations, practice, and communication (Figure 1). What follows are suggestions for each of these activity systems (MPH program, pathway, and IGSs).

First, as the unit with the closest relationship to MPH's pathway students, the pathway program might consider adjusting its Mediating Tools and its Division of Labor. To do this, the pathway faculty and staff could communicate more frequently with the MPH regarding specific contextual challenges of international students as well as the literacy tasks and general curricula of the MPH. Coordination with the MPH could also encompass a joint advanced orientation or onboarding for IGSs. Spratling and Valdovinos (2022) asserted that orientations for graduate and professional students are essential, and the authors provided models for both in-person and virtual orientations along with key aspects (content, format, accessibility, budget, and assessment).

Additionally, the pathway program needs more resources—time and personnel—to update the graduate pathway curriculum, specifically for aligning it with EAP

instructional activities and materials that are authentic, interdisciplinary, grounded in EAP research and practice, and relevant to IGS needs in targeted disciplines (Hyland & Shaw, 2016; Min, 2016). Currently, the activities and materials used in the pathway program often seem irrelevant to the work that graduate students are asked to do in their respective professional programs, as demonstrated by the apparent gap between the graduate pathway curriculum guides and the MPH syllabi. In an EAP course, materials should be authentic and chosen for the real literacy tasks that the students might be asked to perform in their disciplines (Hyland & Shaw, 2016). Practitioners developing curriculum in pathway programs might consider updating textbooks and literacy tasks to reflect current global and interdisciplinary activities. With the goal of reducing the gap among these three systems, the pathways curriculum, which represents the Mediating Tools of that activity system, can be revised to better reflect the authentic language tasks that the students are asked to do in their content areas, like the MPH.

Undoubtedly, revising EAP curricula for a pathway program that serves IGSs in numerous disciplines is a task that would take time and personnel. Faculty and staff need to be innovative in how they undertake such pedagogical tasks, such as grouping students, differentiating instruction, offering discipline-specific workshops, and immersing practitioners in the disciplinary courses to gather insights on literacy tasks required of students (Elturki, 2023). Being innovative with EAP pedagogy "can enrich the EAP curriculum and make it responsive to the direct writing needs of graduate students within the pathway" (Elturki, 2023, p. 16).

The pathway faculty and staff can also support IGSs more effectively by serving as advisors and liaisons to graduate programs, such as the MPH in this study. However,

the pathway program understandably lacks personnel resources and time. The argument should be made to the university and the third-party recruitment corporation for more time and personnel to address both curriculum and communication within and across academic programs. Additionally, such visibility and collaboration with other campus units would help counteract existing marginalization or deficit perspectives. University language support faculty and staff should consider utilizing their professional skills and knowledge of culturally and linguistically responsive pedagogy to work collectively with their students and the students' academic units (Auerbach, 1991). In leading this collaboration, the pathway faculty and staff would position themselves as assets, helping to reduce the gap between the MPH and the pathway activity systems and, perhaps, build credibility with campus administrators who are stewards of additional resources.

Second, the MPH program could consider adjusting their Mediating Tools and Artifacts and their Division of Labor to help close the gap in expectations and knowledge with their IGSs. One way to reduce that gap is to coordinate with the pathway program about MPH instructors' and IGSs' academic needs. Additionally, MPH instructors and advisors could participate in professional development regarding how to serve culturally and linguistically diverse students, which would benefit all graduate students in their program.

To better address written communication needs of all graduate students, the MPH could recognize a possible mismatch "between what graduate students are expected to know and the ways they approach and practice writing as they begin their graduate work" (Brooks-Gillies et al., 2020). To that end, the MPH core faculty should consider furnishing models of targeted genres, providing written corrective feedback on

assignments, and explicitly teaching the genres used in the MPH. Understandably, faculty often find it difficult to teach rhetorical knowledge of their discourse communities because they have often internalized this knowledge and are untrained at teaching it to others (Lawrence & Zawacki, 2018). Alternatively, the program could employ a current or former international or domestic MPH student to serve as a writing tutor for graduate students struggling with written communication in this genre.

Third, IGSs should remain aware of the Community within their activity system. IGSs should be encouraged to continue and even increase communication with MPH advisors and instructors, with the pathway faculty and staff, and with the Graduate School regarding their experiences in the MPH. By encouraging IGSs to voice their perceptions of what they need and of what is working for them, the other activity systems are in a position for making appropriate adjustments to provide such support. Additionally, after IGSs have successfully completed their first semester of MPH core courses, they might consider using their experience to serve as mentors and tutors for other IGSs entering the MPH program (McCleod & McClellan, 2022).

Finally, this entire university system, from top down, should consider taking an asset perspective to view IGSs and the pathway program. The Office of Global Engagement and the pathway program are staffed with practitioners who are experts in working with international students from diverse backgrounds and, thus, can provide invaluable suggestions for pedagogy and communications needed by other campus units. Additionally, for graduate programs to effectively advocate and support IGSs, such programs need to reconceptualize IGSs as "transnational emerging scholars, to listen to their experiences and their concerns, and to develop support structures and interventions

that respect their status as emerging transnational professionals" (Hall & Navarro, 2022, p. 242).

In this study, I identified IGS challenges and opportunities for support. By mapping the qualitative data with the activity systems of the stakeholders (MPH program, pathway program, and IGSs), I provided ways in which each activity system could adjust in order to minimize IGS challenges and maximize support. These implications focus on systemic institutional change rather than solely on IGS acclimation. Such systemic change can lead to greater success and the retention of IGSs recruited to IHEs in the United States.

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Appendix A: International Graduate Student Participant Profiles

International graduate students	Secondary school country	English-medium instruction?	Progress in the MPH
Student 1	India	yes	Fourth/Final semester
Student 2	India	yes	Third semester
Student 3	India	yes	First semester
Student 4	India	yes	First semester
Student 5	India	yes	First semester
Student 6	Pakistan	yes	Third semester
Student 7	Pakistan	yes	Third semester
Student 8	Pakistan	yes	Third semester

Appendix B: Joint Display of Challenges by Stakeholder Group

Participant group	Interview: Main challenge theme	Interview: Sub-Theme	Interview: Sub-Theme	Interview: Sub-Theme
Students	Acclimating to the "pattern of study" in the MPH	Adapting to the pace and workload of the MPH	Acclimating to online delivery and course technology	Adapting to U.S. academic English
Pathway faculty & staff	Adapting to a new educational context	Adapting to the workload of the MPH	Adapting to online courses	Feeling unwelcome
MPH faculty	Adapting to written academic English	Adapting to written academic English		

Appendix C: Joint Display of Desired Support by Stakeholder Group

Participant group	Interview: Desired support
Students	More understanding of international graduate students (academic advising, support outside of the Office of Global Engagement)
Pathway faculty & staff	Increased resources (time and personnel)
MPH faculty	Advanced orientation
	More communication with the Office of Global Engagement

INTERNATIONAL STUDENTS' EXPERIENCES IN A U.S. MASTER OF PUBLIC HEALTH PROGRAM: ACCLIMATING TO A "DIFFERENT PATTERN"

by

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Format adapted for dissertation

Abstract

Graduate degree programs in public health experienced sharp increases in applicants during the global COVID-19 pandemic, resulting in a more diverse applicant pool and the need for more inclusive pedagogy to address teaching and learning in these programs. International students, a population that has continued to grow in U.S. graduate programs over the past decade, were part of that diverse pool. This study aimed to identify the challenges experienced by diverse students, specifically international F-1 visa students, in a Master of Public Health (MPH) program at a research university in the southeastern United States. Through analysis of qualitative interviews of international graduate students (IGSs), I identified student challenges and desired learning support in the MPH. One-on-one interviews with eight IGSs led to three major themes regarding challenges: (a) acclimating to academic English language, (b) acclimating to U.S. academics and the MPH curriculum, and (c) understanding U.S. ideals of academic integrity and plagiarism. IGS participants also suggested the need for teaching and learning support from MPH faculty and staff, including (a) accessible academic advising and (b) explicit instruction. This study has implications for U.S. MPH programs that serve steadily increasing populations of culturally and linguistically diverse students and that seek to improve program delivery and student outcomes.

Keywords: Master of Public Health, international graduate students, inclusive pedagogy, graduate student support, diverse student populations

INTRODUCTION

Studies have investigated the challenges facing international graduate students (IGSs) in the United States within university English language programs (Elturki, 2021; Elturki, et al., 2019) and across graduate disciplines (Chen & Razek, 2016; Hyun, 2019; Kumi-Yeboah & James, 2014; Sharma, 2018). However, because of a wide range of diversity in cultures and educational backgrounds, IGSs still remain an underresearched student population (Krsmanovic, 2021; Sharma, 2019). Studies on IGS challenges have led to pedagogical practices that are culturally and/or linguistically responsive to better meet the needs of IGSs in general. However, still needed are studies that can lead to inclusive practices for meeting the needs of IGSs in specific academic disciplines or programs such as public health.

Graduate programs in public health are spaces where inclusive pedagogy is needed. Although applications to U.S. graduate degree programs in public health had been steadily increasing for decades, they spiked 40% from March 2020 to March 2021, in part because of increased interest in public health spurred by the global COVID-19 pandemic (Association of Schools and Programs of Public Health [ASPPH], 2021). This rise was also marked by an increase in applicant diversity. For example, the Council of Graduate Schools reported that the first-time graduate enrollment among international students (F-1 visa holders) increased 20% in Fall 2019 and continued to increase in Fall 2021 when pandemic visa restrictions eased (Zhou, 2022).

Researchers predict that ensuring diversity in public health programs at U.S. universities can help alleviate health disparities (Bouye et al., 2016; Thorpe et al., 2021). However, they discuss diversity mostly in regard to African American, Hispanic, Asian,

and indigenous U.S. populations (Brown et al., 2021; Liburd et al., 2021), as well as students from low socioeconomic backgrounds (Cardarelli et al., 2019) and students with disabilities (James et al., 2022). Little, if any, research has addressed the pedagogical needs of global ethnic groups (e.g., F-1 visa holders) in public health programs at U.S. universities. A need exists for understanding local and global contexts within public health scholarship and instruction (Bowles, 2019) and, also, for supporting increased inclusivity in graduate public health education (Sullivan & Galea, 2017).

Researchers have often sought the direct voices of post-secondary students to identify areas for improvement in successful learning. Lindsay et al. (2023) interviewed 15 students at a Canadian university to ascertain the connection between mental health and teaching practices. Brewer et al. (2020) gathered undergraduate student perceptions of an introductory health course. Chen and Razek (2016) interviewed 16 IGSs from India to better understand the students' acculturation and their perceptions of belonging at a U.S. university. Hyun (2019) interviewed 12 IGSs at a U.S. university to gather a composite understanding of IGS academic and non-academic challenges. In these qualitative studies, student voices were prioritized to give the researchers a depth of understanding that a broad quantitative survey alone may not have garnered. However, even as IGS applications to U.S. graduate programs have sharply increased (Zhou, 2022), few, if any, studies have investigated the perceptions of IGSs in U.S. MPH programs. Thus, this study sought to partially fill this gap by prioritizing the voices of IGSs regarding their learning experiences in a U.S. MPH program.

Purpose of the Study

This article reports on one component of a larger case study. In late 2020, an English language program at a large research university in the southeastern United States expressed concern about the challenges of IGSs in an MPH program, ongoing challenges that had existed even before the pandemic. MPH faculty and administrators expressed similar concerns. To better understand these concerns, I conducted the larger case study with mixed methods to ascertain student challenges and desired support from the perspectives of three stakeholder groups: IGSs, the English language program faculty and staff, and the MPH faculty and administration. The larger study began with a quantitative strand utilizing surveys of these stakeholders to identify themes of challenges and support. Results from the quantitative survey strand provided insights for composing interview protocols for the subsequent qualitative strand.

The qualitative component consisting of IGS interviews is reported in this article. The purpose of these interviews was to offer IGSs a voice about their challenges, experiences, and desired learning support. The following research questions guided this qualitative component:

> Research Question 1: What are the perspectives of IGSs about their learning challenges in the MPH?
>
> Research Question 2: What additional learning supports do IGSs desire in the MPH?

This research can be used to better understand the unique academic challenges of international students with F-1 visas in a professional graduate program. Insights can also be used by MPH faculty and administrators as a guide for reflecting upon current

teaching and learning practices with diverse student populations. Most importantly, the current study contributes knowledge regarding IGS challenges in a U.S. MPH program.

Method

I conducted the present study at a large, regionally accredited R1 university (Doctoral University with Very High Research Activity). The university's MPH, accredited by the Council on Education for Public Health (CEPH), included 590 graduate students in Fall 2022, of which 62 (11%) held F-1 visas and thus were considered international.

Data Collection

For this smaller qualitative study, I adopted a descriptive interpretivist paradigm (Rossman & Rallis, 2012) with the purpose of gathering views of IGS experiences in the MPH. Thus, for this report, I included only data from interviews with IGSs. From the larger study's quantitative strand, I had identified the following themes: acclimation experiences, language, general challenges in the MPH, academic integrity and plagiarism, group projects, and wish list of additional support. Based on these themes, I composed a semi-structured interview protocol for the current study. This interview protocol is in the Appendix. This interview guide approach (Patton, 2015) permitted me to cover in depth the themes I discovered in the quantitative strand while still allowing for a conversational exchange and the emergence of new themes.

I conducted interviews of approximately 20 minutes in length with each IGS. After a given participant had consented to participate, I recorded the interview on the

university's Zoom platform. I uploaded verbatim transcripts to NVIVO Version 14 software for analysis. The institution's Institutional Review Board had initially approved the larger, mixed methods study and then subsequently approved the amendment for the interview protocol of this smaller study.

Participants

In the larger study's quantitative strand, I had asked for volunteers to participate in this interview strand. Thus, using this approach to purposeful sampling, I invited the four IGSs who had volunteered to participate in interviews. To reach data saturation, I asked the university's English language program to identify other IGSs in the MPH. I also invited those identified students to participate in interviews, of which an additional four responded positively. In total, eight IGSs in the MPH consented to participate in an interview. Table 1 shows relevant demographics.

Table 1

IGS Demographic Information

IGS participants	Secondary school country	Prior English-medium instruction?	Progress in the MPH	Gender
IGS-1	India	yes	Fourth/Final semester	female
IGS-2	India	yes	Third semester	female
IGS-3	India	yes	First semester	female
IGS-4	India	yes	First semester	female
IGS-5	India	yes	First semester	female
IGS-6	Pakistan	yes	Third semester	female
IGS-7	Pakistan	yes	Third semester	female
IGS-8	Pakistan	yes	Third semester	female

As shown in Table 1, all eight IGSs were female and from either India or Pakistan. These gender and home country demographics are fairly representative of the IGS population in this MPH program. Per institutional records at the time of data collection, 79% of the students in this MPH program were female; additionally, 60% of the IGSs in the MPH were from either India or Pakistan. All eight reported that their prior education in their home country had been conducted in English.

Data Analysis

To analyze the data, I took an abductive approach, in which a researcher cycles between an inductive or qualitative approach and a deductive or quantitative approach (Creamer, 2020). First, I incorporated themes that had emerged from the larger study's

quantitative strand into the qualitative interview protocol. Then, I used *a priori* codes for analyzing the qualitative interview data. After initiating the coding by using these a priori codes, I conducted subsequent rounds of structural coding (Saldaña, 2016) by categorizing data as challenges or as needed support. By doing so, I cyclically connected the research questions to the analysis. My data analysis led to the identification of three themes related to challenges and two themes related to needed support. After identifying these five themes, I gathered quotes from the coded transcripts to represent each theme.

I adhered to principles of trustworthiness and credibility in this qualitative study (Merriam & Tisdell, 2015). To ensure that the findings were persuasive and that they portrayed the participants' experiences as accurately as possible, I employed strategies of peer debriefing with key informants from stakeholder groups in my larger study, member checking of the completed transcripts and written reports, and triangulation of data with the larger study's quantitative results and other published scholarship.

Findings

My analysis of interview data led to three themes of challenge: (a) acclimating to academic English language, (b) acclimating to U.S. academics and the MPH curriculum, and (c) understanding U.S. ideals of academic integrity and avoiding plagiarism. These challenge themes tied to Research Question 1: "What are the perspectives of IGSs about their academic challenges in the MPH?" Additionally, my analysis of the interview data led to two themes of support: (a) accessible academic advising and (b) explicit instruction. These support themes tied directly to Research Question 2: "What additional

learning supports do IGSs desire in the MPH?" What follows is an explanation of these results illustrated with representative quotations from the participating IGSs.

Challenge Theme 1: Acclimating to Academic English Language

When I asked IGSs to describe their current English language fluency, most responded that they were comfortable with English. All eight participants reported that their prior educational experience in their home country was in English. Because they came from environments of English-medium instruction, they reported that they were familiar with using English for both general and academic purposes. For example, IGS-6 explained that English is an official language in her home country of Pakistan and, because she attended an English-medium post-secondary school, she assessed her knowledge of English as "fairly good."

Some participants, however, explained how regional accents can cause challenges with listening comprehension. IGS-2, from India, responded that she is comfortable using English but doesn't feel that she is at an advanced level. She mentioned that she can speak "proper" and "fluently," but that she had difficulty with understanding spoken English when she first arrived in the United States because of the unfamiliar accent. Throughout her response, IGS-2 referred to her improvement of "United States English," which she attributed to immersion with the language from the beginning of her time in the MPH program. IGS-5, from India and in her first semester in the program, also attributed her improvement to immersion in the United States.

These responses illustrate that, because of the nuances in English as a global language, institutions cannot assume that IGSs from an English-medium background are

fluent with using English in the United States, especially for academic speaking and listening tasks. This language challenge may add difficulty for IGSs when transitioning to graduate school in the United States.

Challenge Theme 2: Acclimating to U.S. Academics and the MPH Curriculum

Acclimating to U.S. academics in general and the MPH curriculum in particular was noted as more challenging than acclimating to the nuances of U.S. English. This theme emerged from responses to interview questions regarding challenges of acclimating to U.S. higher education and the MPH program specifically (see the Appendix).

Many participants used the word "pattern" to describe the typical curriculum whether it was in the United States or their home country. IGS-5's response illustrates the use of the word "pattern" as it was used by several participants:

> The major difference I am right now experiencing is academic pattern because education level in India and United States have much difference from each other. Patterns are really different.

IGS-5 compared the schooling "pattern" in the United States to that of her prior context in India. Because this is her first semester in the MPH, she is perhaps still acclimating to a different type of curriculum than in her home country. IGS-4, also from India and in her first semester, explained this difference in more detail. She also used the word "pattern," but she described that the pattern she experienced in the United States involved submitting many assignments every week. This "pattern" took some time for her to get

used to because, in India, she was accustomed to only terminal exams. She also alluded to how this frequency of assignments could cause stress:

> It is a little too much for the beginning as in getting used to the pattern, and suddenly you need to submit all the assignments. You don't want to submit it late; you don't want to get it wrong. It's too many things to do as soon as you come here.

She found the pattern of schooling in the U.S. and MPH curriculum to be "too many things" early in the semester, right after she arrived in the United States. She also expressed some concern about submitting late or incorrect assignments because of "all the assignments."

IGS-7, from Pakistan and in her third semester in the program, also expressed difficulty with this different "pattern," specifically the frequency and number of assignments in the United States compared to her home country. Like IGS-5, she also connected this challenge to stress at the beginning of her time in the program: "In the start, I was thinking, oh, I will not keep up with that because it's too much. Because five subjects, every week assignment, every week quiz. So, it was very tough for me." According to these data, students from English-medium schools in Pakistan and India might be accustomed to less frequent yet larger summative assessments, but in the United States and in this MPH, the assessments–both summative and formative–are more frequent. Concern about keeping up and submitting all assignments is apparent with these students' responses.

Using a course management system to collect student assignments is now common in many U.S. graduate programs. However, this was also reported as a challenge

for IGSs in acclimating to the MPH "pattern." IGS-4, in her first semester of the program, remarked that she was accustomed to doing and submitting assignments on paper rather than on her computer through the university's course management system. Also from India, IGS-3 reiterated what IGS-4 reported but also mentioned technological challenges with composing and submitting assignments that often resulted in errors. Neither of these students were accustomed to using technology for creating and submitting academic coursework. Hence, the technology required for the MPH program created challenges upon arrival at this university.

Familiarity with MPH course content and discourse vocabulary also emerged from the data as one of the IGS challenges. IGS-6, from Pakistan and in her third semester, spoke for many of her IGS peers in the program regarding topics used in the MPH curriculum:

> We had quite a number of international students in all of our classes, and most of us were not aware of the U.S. healthcare system like the American students were. Basic things like the basic structure, the state level, how Medicaid works or what's Medicare. I don't think the professors were aware of that. So, we had to do extra research before every class. So, I think that was a bit difficult.

IGS-6 remarked that she knew her own research regarding the U.S. healthcare system was "extra" and "a bit difficult" compared to what her U.S. peers may have experienced in the same courses. Likewise, IGS-7 mentioned doing extra background research to understand the topics, specifically current events, discussed in her MPH courses. Because of this unfamiliarity, she had to conduct background research to familiarize herself with public health matters rooted in U.S. current events, such as the environmental causes of

cancer in Louisiana or public health issues in North Carolina. IGS-7 explained that she was confused when doing assignments because she was not familiar with the issues being applied in her courses.

Unfamiliarity with public health discourse vocabulary was also a challenge for IGSs. For example, IGS-5, a medical doctor from India, called public health in the United States "a new approach" and a challenge for her. She explained that even though the topic of health was familiar to her, the "public health language" and "professional words" confused her. This IGS was challenged when she tried to connect her prior knowledge to a U.S. public health approach.

As these data demonstrate, a disconnect can exist between IGSs' prior experience and the topics studied in U.S. MPH programs. This disconnect caused confusion and difficulty in acclimating to U.S. higher education in general and to the MPH curriculum in particular.

Challenge Theme 3: Understanding U.S. Ideals of Academic Integrity and Plagiarism

The topic of academic integrity and plagiarism was included in the IGS interview protocol because the MPH faculty and staff noted the matter as a concern on their survey responses in the larger study's quantitative strand. Thus, I asked IGS interviewees about their knowledge and concerns regarding academic integrity and plagiarism. All eight IGS interview participants acknowledged being told about academic integrity policies at the university level and specifically in the MPH program. However, they did not seem to know exactly what it meant to work independently, to give attribution, or to use

secondary sources in their writing. IGS-4's response regarding awareness of the topic is representative of the responses from all eight interviewees:

> I've been hearing about this from Day One. Each and every person here since orientation have been telling me, "You have to be very careful about this. You don't have to share your answers. You cannot discuss it, unless it's told to you to do so."

However, even though IGSs expressed awareness of the policies, they also expressed unfamiliarity with how plagiarism is defined and treated in the United States. For example, IGS-2 explained that plagiarism is defined and viewed differently in her home country of India compared with the U.S. definition and view. According to her, the expectation in India is that students will have similar answers because everyone uses the same textbooks to form their written responses to assignments. However, in the United States, having even a "little bit" of similar phrasing can result in an accusation of plagiarism. IGS-2's comments echo what other participants remarked about different definitions of plagiarism and different practices in the use of secondary sources.

Some students explained that they were unfamiliar with secondary source attribution, a common expectation in U.S. graduate programs. IGS-3 spoke specifically about how she previously did not know how to create citations in her writing, and she thinks that this lack of knowledge caused her to be accused of plagiarism early in her MPH program. This student's comments about "rules and regulations" regarding academic integrity represented her IGS community:

> They [MPH faculty] also talk about the academic integrity and plagiarism…. We are international students, so we don't know what is this. We make a mistake. I

> also make a mistake this semester…but we do not know about the whole rules and regulations, that's why we make a mistake. But in this first semester is really difficult for all the international students to learn about the education system of the USA.

It seems that adapting to the culture of graduate school in the United States might, for some IGSs, include also adapting to a different cultural view of academic integrity and source use.

One student, IGS-5, openly admitted to an academic integrity warning that she received after she gave a copy of her coursework to her peer as an example of how to do an assignment. The peer had asked for assistance with a homework assignment in which students were asked to describe their data. Confused about what the instructor expected, the peer copied and submitted IGS-5's homework as the peer's own. Thus, both students were accused of plagiarism in the MPH. IGS-5 readily admits to her part in this academic integrity infraction in the MPH; however, her perspective is one of a student trying to help a peer understand the assignment expectations. Likely, the peer, too, was simply trying to understand the assignment expectations. IGS-8 shared a similar experience with plagiarism in the MPH:

> It was really accidental because we were new here. We don't understand the things very well in the start. We struggle a lot more than the students here. So, we just help each other that how can we do the assignments and whatever. This [being accused of plagiarism] happened to me accidentally.

IGS-8's perception is that, in trying to help each other understand assignment instructions or expectations, IGSs sometimes accidentally plagiarize. Like IGS-3, IGS-8 also noted

that she had heard about similar situations from her IGS peers, suggesting that this experience is not uncommon.

As these data illustrate, issues related to academic integrity and plagiarism are common among IGSs. However, such issues tend to take place when assignment instructions are unclear or when IGSs do not understand U.S. academic rules.

The quantitative surveys in the larger study led to the identification of IGS challenges regarding language, acclimation to U.S. academics and the MPH curriculum, and academic integrity and plagiarism. In the qualitative interviews, the IGSs offered their perceptions of these challenges in the MPH and, by doing so, provided substance and depth. Although IGSs' challenges with language, acclimation to U.S. academics and the MPH curriculum, and academic integrity and plagiarism were initially discovered from the quantitative surveys in the larger study, the IGSs in the MPH had plenty to say in interviews about these topics and provided substance and depth through their perceptions of these challenges in the MPH.

Support Theme 1: Accessible Academic Advising

During the interviews, I asked IGSs what additional support they felt they needed to be successful in the MPH. Among the themes that emerged, IGSs felt they needed academic advising that was more accessible. More specifically, several IGSs mentioned that their academic advisor did not satisfactorily respond to their emails nor to the concerns they shared in advising sessions. For example, IGS-7, a third semester student from Pakistan, had a background in medicine but was advised to take a course in

industrial hygiene for which she felt unprepared. This student shared this concern with her advisor but felt the advisor's response was strict and not helpful.

IGS-6 expressed similar concerns regarding advising with an emic perspective of IGS community concerns:

> I've heard this from a lot of other friends, that we could be better advised. Like the advisor we have for our concentration. She's not as responsive and I know she's busy and everything…. But for international students, I think we do need extra help in terms of what courses to take and how this one course would help us and another would not. She's not as responsive and understanding, and I've heard from a lot of people.

This student expressed concern regarding advisors not being responsive to the unique advising needs of IGSs. Echoing this sentiment, IGS-2's perceptions reflect the idea that IGSs may desire culturally responsive advising and have unique needs compared to their domestic graduate student peers:

> I think that every international student need advising in a very better way. I feel there is very much confusion, and I think they need to improve that, because we don't know anything, zero. Some people don't even know what is the advisor… I got to know from my friends that they have advisors.… When I got to know that, I emailed, but I never got an answer from her [the advisor].

These responses illustrate IGS perceptions that they need advising from the MPH that is more attentive and more culturally responsive, especially regarding coursework. These eight respondents also shared that other IGSs in the program experienced similar challenges and frustrations.

Support Theme 2: Explicit Instruction

IGSs also expressed a need for explicit instruction from professors and teaching assistants. They wanted explicit instruction on using course technology, completing assignments, and avoiding plagiarism. For example, IGS-1 suggested that someone associated with the MPH program, maybe an advisor, should ensure IGSs know how to use the course management system and how to complete course assignments. The MPH program might assume that all students are skilled at using the university's platform and course management system. However, this is not always the case with IGSs.

To address the challenge of avoiding plagiarism, IGS-2 suggested that explicit instruction on academic integrity and plagiarism should be provided by the university or the MPH program. She also suggested that the IGSs might benefit from several class lectures with practice on ways to complete assignments so that accidental plagiarism is minimized or, preferably, avoided. She referred to her need for explicit instruction regarding what counts as an academic integrity code violation and, specifically, what counts as plagiarism. Additionally, IGS-2 connected the topic of academic integrity with students' understanding of assignment instructions and expectations, which was illustrated earlier in the challenge themes. Other respondents, such as IGS-5, also expressed a desire for professors and teaching assistants to "be more clear and precise" about what students should do or not do with assignments.

As these data demonstrate, IGSs desire greater clarity about several aspects of the MPH program. They want clearer instructions from course instructors (professors and teaching assistants) regarding assignments and expectations. They also want clearer guidance regarding the concept of academic integrity.

Overall, the data regarding additional learning support serve to highlight IGSs' perceptions that they would appreciate and benefit from academic advising that is more attentive and accessible. Additionally, these students also expressed a need for more concrete and practical instruction regarding U.S. higher education expectations such as using a course management system and other types of technology. Finally, students acknowledged that they would benefit from additional instruction that is focused on meeting U.S. expectations of academic integrity.

Discussion

In this qualitative study, I investigated the perceptions of IGSs regarding their challenges and needed support in a U.S. MPH program. This research is a start at filling a gap in the literature regarding how best to support IGSs in professional graduate programs in the United States. The data revealed three challenge themes: acclimating to academic English language, acclimating to U.S. academics and the MPH curriculum, and understanding U.S. ideals of academic integrity. In terms of support, IGSs expressed needs along two themes: more attentive academic advising and explicit instruction.

Interestingly, the IGSs expressed needs for support that could alleviate the identified challenges. For example, IGSs noted difficulties with acclimating to U.S. academics, to the MPH curriculum, and to U.S. ideals of academic integrity. They also described a need for clearer instructions for doing assignments and avoiding plagiarism. Instruction on using citation styles and avoiding plagiarism is provided by the university's English language program and is available to IGSs who come through that program as well as to those directly admitted to the MPH. However, IGSs may not know

about this resource or may not make the direct application of this instruction to their coursework in the MPH. Some of these supports need to be included in orientations prior to students arriving on campus. Additionally, implementing culturally responsive pedagogical strategies could also help reduce instances of plagiarism (Bygrave & Aşık, 2019). A combination of clearer instructions and expectations along with culturally responsive instruction could go a long way to making an MPH program more inclusive for IGSs.

Programs might expect that IGSs with prior English-medium instruction know how to use the English language for academic purposes. However, this study demonstrated that such IGSs are still challenged, at least initially, regarding knowledge and use of the English language in U.S. academic contexts. The main goal of English-medium instruction is to use English as a mode to learn disciplinary content rather than to learn the English language (Coleman et al., 2018). Additionally, English-medium learning contexts are diverse. Thus, IGSs from such backgrounds may not have uniform experiences using English in educational contexts and may require differentiated instruction upon starting an MPH program in the United States. U.S. graduate programs that serve IGSs should consult with professionals on their own campus, as well as at other universities, who have experience working with IGSs from diverse backgrounds.

This study also exemplified the need for professional programs in the United States to be culturally responsive to the needs of their internationally diverse student populations. Intercultural competence is an important quality for academic advisors who interact with diverse student populations (Zenner & Squire, 2020). The interpersonal approaches used by academic advisors when advising domestic students may not lead to

IGSs' satisfaction with the advising relationship (Rice et al., 2009). Increasing intercultural competence requires self-awareness and open-mindedness to support students with differing worldviews. Graduate programs should ensure that faculty and staff receive support for increasing their intercultural competence. Faculty in public health programs can also increase intercultural competence for themselves and their students by implementing teaching strategies, specifically Universal Design for Learning, to engage diverse learners (Cardarelli et al., 2019).

Furthermore, beyond addressing diverse structural, social, and cultural aspects of the public health field with students, the MPH faculty may need to go a step further to provide context for U.S. public health topics unfamiliar to IGSs. Additionally, scholarship on how to engage international students in U.S. classrooms could serve as the basis for appropriate professional development regarding inclusive pedagogical practices in an MPH program (Glass et al., 2015; Shapiro et al., 2014). Finally, MPH programs applying inclusive pedagogical strategies should have a plan in place to evaluate efficacy and disseminate those results for the benefit of other programs.

Limitations

As with any qualitative study, some limitations exist. First, the IGSs who participated in this study were from an MPH program at a single university. IGSs from a different university's MPH may communicate different needs. Second, these IGSs were from prior educational contexts with English-medium instruction. IGSs from different educational contexts may have different perceptions of their challenges and needs in their MPH program. Therefore, these findings cannot be generalized beyond this particular

context. Nonetheless, these implications do provide thoughtful reflection points for other graduate professional programs that serve IGSs. Third, the IGSs who volunteered for this study represent just a small number of IGS voices from this MPH, and they represent no male voices. When compared with the findings of this study, male IGSs in this same MPH may have different perspectives of challenges and needed supports.

Future Directions

This qualitative study of IGS challenges and needs in an MPH program only begins to fill a gap in researching IGS experiences in U.S. graduate programs. Additional investigation is needed to explore the perceptions of IGSs who come from a greater diversity of educational and cultural backgrounds as well as those who matriculate into a broader variety of graduate programs. Graduate program faculty and staff in general and MPH faculty and staff in particular should consider the findings and implications from this study for guiding their reflections about teaching and learning in their own programs, especially as IGS enrollment increases. Finally, faculty and staff in graduate programs should consider conducting their own investigation of IGS challenges and needs with a similar qualitative design recognizing the nuances of context. Findings and implications could then be disseminated to their field for the benefit of similar programs.

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Appendix: Interview Protocol

1. In what country did you attend secondary school?
2. What is your first language/mother tongue?
3. In what language(s) were you taught during elementary and secondary school?
4. How long have you been in the United States?
5. How would you describe your transition from your country of origin to the U.S.?
6. How would you describe your current English language knowledge?
7. How long have you been in the Master of Public Health program?
8. Did you attend the INTO UAB Graduate Pathways program?
    - If so, how many semesters were you in the program?
    - What did you learn with INTO that has been helpful to you in the Master of Public Health program?
    - What do you wish you'd learned in INTO that might have helped you in the Master of Public Health program?
9. What do you enjoy about the Master of Public Health program?
10. Can you describe how it was for you to acclimate or adjust to the Master of Public Health program?
11. Do you have any challenges as a student in that program?
    - If so, would you care to explain?
    - Academic challenges?
    - Social challenges?
12. What has been the most difficult aspect of being a student in the Master of Public Health program?
13. If you have had challenges as a student in the Master of Public Health program, what do you do, or did you do, to ease each challenge?
    - Have you sought help from anyone at the university to help with these challenges? If so, from whom?
    - Can you describe the outcome?
14. How would you describe the workload of the Master of Public Health program compared to the workload of your previous coursework?
15. What are your perceptions of the reading and writing load?
    - How well do you feel that you complete the reading tasks for the Master of Public Health program courses?
    - How well do you feel that you complete the writing tasks for the Master of Public Health program
16. Academic integrity and avoiding plagiarism are important topics in graduate schools in the U.S. and elsewhere. Have your instructors in the Master of Public Health program discussed those topics with students?
    - If so, how do these discussions compare with your previous coursework, before joining the Master of Public Health program?
    - Do you have any concerns with the topic of academic integrity? With the topic of plagiarism? If so, what are your concerns?

17. Can you describe your experiences with group projects in the Master of Public Health program?
18. How do you think the COVID pandemic has affected your time as a graduate student here at UAB?
19. In what ways do you feel you were prepared to enter the Master of Public Health program?
    a. In what ways do you feel you were not prepared to enter the Master of Public Health program?
    b. What advice would you give to other international students coming into the Master of Public Health program?
20. What support would be beneficial to you as an international student in the Master of Public Health program?

ADDRESSING INTERNATIONAL GRADUATE STUDENTS' EXPERIENCES WITH PLAGIARISM IN THE UNITED STATES: A CASE STUDY WITH EXPLANATORY MIXED METHODS

by

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Abstract

Plagiarism is conceptualized in diverse ways in U.S. institutions of higher education as well as those outside of the United States. The increase in students from outside the United States–with potentially different understandings of plagiarism–requires examination of possible cultural disconnects between international students' conceptualizations of plagiarism and how U.S. faculty and administrators approach plagiarism. Very little research has investigated these potential disconnects or sought international students' perspectives of plagiarism in U.S. universities. At one large research-intensive university in the southeastern United States, a Master of Public Health (MPH) program reported proportionally more cases of plagiarism attributed to international students than to domestic students. To investigate this reported difference, I conducted a case study with mixed methods to identify what challenges with plagiarism, if any, are experienced by international students in this MPH program. I conducted surveys and interviews with international students and program faculty to gather perspectives regarding plagiarism. Survey and interview data showed that, although international students in this particular program understand the importance of avoiding plagiarism, they are challenged with applying tools to adhere to university standards. Implications of this study include not only a need for institutional awareness of diverse students' conceptualizations of plagiarism but also a need for faculty and administrators to adopt new curricular practices and campus cultures that can minimize reports of plagiarism among all students.

Keywords: international student, graduate student, activity theory, plagiarism, academic integrity

Plagiarism is a complicated topic in U.S. institutions of higher education (IHEs), but the concept is just as complicated outside of the United States, in part resulting from to varying definitions and values (Bretag, 2016). International students (F-1 visa holders) in the United States have long been stigmatized as "persistent plagiarisers" (Park, 2003, p. 480). Regardless, U.S. IHEs have continued to invest in recruitment for internationalization, resulting in increased applications from international students to their graduate schools (Zhou, 2022). In Fall 2022, 385,097 international graduate students, most at the master's level, were enrolled in U.S. IHEs (Institute of International Education, 2022). With such large numbers of international graduate students from varied cultural and educational backgrounds studying in the United States and the pervasive stigma of international students as plagiarizers, clarity is needed regarding why international graduate students tend to plagiarize or are perceived as plagiarizing. Also needed are insights regarding how graduate programs can better communicate about and address plagiarism among these students.

Plagiarism is tied to the literacy task of writing. Multiple studies have investigated the written literacies of international students (Andrade 2006, 2009; Curry, 2016; Ravichandran et al., 2017; Sharma, 2018), and some studies have focused specifically on international students and plagiarism (Fatemi & Saito, 2020; Pecorari, 2003; Shaw et al., 2007). However, other than Isbell and Chaudhuri (2021) and Shen and Hu (2021), few researchers have prioritized the perspectives of international students regarding their experiences with plagiarism at a U.S. university much less in a specific degree program.

At the center of the current case study is a Master of Public Health (MPH) program in the southeastern United States. Program stakeholders (administrators, faculty,

and international students) expressed a concern regarding plagiarism and international students. During the 2021-2022 and 2022-2023 academic years, international students comprised approximately 10% of the MPH program's student population but represented approximately 45% of the academic misconduct cases. Despite institutional and departmental measures (e.g., academic integrity statements, syllabi statements, instructional videos), almost half of this program's academic misconduct cases dealt with plagiarism attributed to international students.

Although empirical work is abundant regarding plagiarism and international students, only a few studies have prioritized the voices of international graduate students within a single graduate program. Therefore, my purpose for this case study with mixed methods was to identify what challenges with plagiarism, if any, the international graduate students in this MPH have experienced and explore possible adaptations to the program and institution to help minimize reports of plagiarism. To that end, the research questions for this mixed methods inquiry were as follows:

1. Do MPH faculty and international students perceive that international students are challenged with the concept of plagiarism?
2. What are international graduate students' experiences with plagiarism in this MPH?
3. Based on the perceptions of international students and faculty in the MPH, what support is needed to minimize reports of plagiarism?

Literature Review

To understand the context surrounding plagiarism and international graduate students at IHEs in the United States, I reviewed literature in three broad areas. First, I reviewed scholarship regarding how the concept of plagiarism is operationalized in post-secondary education within and beyond the United States. Second, I investigated how plagiarism is addressed by U.S. IHEs. Finally, I examined scholarship on reasons why international students in the United States might reportedly plagiarize.

Conceptualizations of Plagiarism

In U.S. IHEs, the concept of plagiarism is quite complicated (Bretag, 2016). Often, plagiarism is viewed as "theft of intellectual property" (Fusch et al., 2017, p. 55), essentially a moral or ethical issue (Fishman, 2016). This theft metaphor and the use of academic integrity honor codes in the United States are remaining signs of the historical influence of religion on U.S. IHEs (Fishman, 2016). Additionally, the democratic ideal of educating all U.S. citizens has meant that IHEs enroll students with diverse background education, language competence, parent or guardian knowledge and guidance for post-secondary work, and general preparedness. However, this diversity necessitates that IHEs craft flexible institutional policies to attract and retain students. This flexibility has meant that the definitions and policies surrounding academic integrity and plagiarism in the United States can be inconsistent or unclear within and across IHEs (Fishman, 2009, 2016).

Some scholars and institutions have attempted to delineate types of plagiarism, such as patchwriting (Howard, 1995; Pecorari, 2003); intentional and unintentional

plagiarism (Fatemi & Saito, 2020); and complete, direct, and indirect plagiarism (Hu & Yu, 2023). Despite these nuanced views, a pervasive overall connotation in IHEs remains that plagiarism is "moral weakness, willful misconduct, duplicity, or wrongdoing" rather than an educative opportunity (Fishman, 2016, p. 13) or the result of cultural or contextual factors (Fatemi & Saito, 2020; Isbell et al., 2021; Kim & Uysal, 2021; Parnther, 2022; Ravichandran et al., 2017). Even the American Psychological Association (APA, 2020) alludes to the metaphor of theft in defining plagiarism as "the act of presenting the words, ideas, or images of another as one's own" (p. 21). Scholars over the past two decades have called for U.S. IHEs to critically reexamine their conceptualization and treatment of plagiarism to move away from a reliance on the metaphor of theft (Evans-Tokaryk, 2014; Evering & Moorman, 2012; Fishman, 2009; Kim & Uysal, 2021; Leask, 2006; Valentine, 2006; Young et al., 2018).

Many scholars have asserted that plagiarism is a socially and culturally constructed concept (Bista, 2011; Evering & Moorman, 2012; Hu & Yu, 2023; Leask, 2006; Valentine, 2006). Because of cultural diversity in U.S. IHEs, certain issues (e.g., academic misconduct) require a multicultural view (Parnther, 2022). In non-U.S. academic contexts, plagiarism may not be perceived as problematic or even recognized at all (Bista, 2011; Bretag, 2016; Evering & Moorman, 2012). For example, in some non-Western academic contexts, policies on academic integrity and plagiarism are either new or inconsistently enforced (Bretag, 2016). As recently as 2010, Indonesia's Ministry of National Education Regulation passed a law to control plagiarism in higher education, defining plagiarism as intentional or unintentional neglect in source attribution (Siaputra & Santosa, 2016). A study in Pakistan found that students and faculty recognized the

importance of avoiding plagiarism, but neither had clear conceptualizations of what plagiarism actually is (McCulloch & Indrarathne, 2022). International students from cultural and educational backgrounds that emphasize memorization and repetition, such as Eastern cultural traditions, often have conceptualizations of intellectual property that do not align with those in the United States (Simpson, 2019). Additionally, students from collectivist cultures may value assisting peers more than they value their own individual performance (Parnther, 2022).

Rather than essentializing that students from Eastern academic cultures have a higher propensity for plagiarism than students from Western cultures, scholars have begun to take a nuanced view of cross-cultural definitions and views of plagiarism. In a cross-cultural comparison study, plagiarism reports in China were not significantly different from those in India, nor from those in the United States (Ison, 2018). However, plagiarism reports in India were significantly different from those in the United States. Interestingly, students from India studying in Australia were found to have challenges with plagiarism because of their transition to a new academic context with unfamiliar academic conventions rather than to students lacking integrity (Handa & Power, 2005).

These studies paint a complicated picture of how plagiarism is defined and conceptualized across cultures. When IHEs recruit and enroll international students, a cultural contact zone (Pratt, 1991) can result in a space where integrating students' various cultural conceptualizations of plagiarism clash with those in the United States. When considering how to define, treat, and communicate about plagiarism, U.S. IHEs need to take a nuanced view rather than an essentializing stance.

Explaining Plagiarism Attributed to International Students

Scholarship has identified multiple reasons leading to international students experiencing plagiarism in the United States (Bista, 2011). As discussed, differences in cultural backgrounds and views of plagiarism can cause difficulties for international students with avoiding plagiarism in the United States (Kim & Uysal, 2021), especially when definitions and policies are inconsistent within and between IHEs. Some scholars believe that a possible cause of plagiarism is that the international students do not understand how plagiarism is conceptualized in the United States or the importance of authorial attribution (Hu & Yu, 2023; Isbell et al., 2021). However, some scholars also attribute plagiarism, specifically unintentional plagiarism, to international students' difficulties using English for academic tasks in the United States, arguing that standardized English language entrance exams do not necessarily indicate students' readiness to use English in academic contexts (Fatemi & Saito, 2020; Ravichandran et al., 2017).

International students' challenges with plagiarism likely can be attributed to a combination of factors, such as cultural (e.g., collectivist or individualist worldviews), situational (e.g., honor codes, language, peer influence, unfamiliarity with local expectations), and contextual (environment of the community and institution; Parnther, 2022). Specifically, students may be unfamiliar with U.S. academic practices for source use and citation styles (Hu & Yu, 2023; Uehara et al., 2018). Additionally, remix culture, defined as a space "where the lines between authors and their sources are conflated in sometimes accidental and other times deliberate ways," has created disparate conceptualizations of authorship (Evans-Tokaryk, 2014). At the same time, globalization

has created increased cultural diversity of students, faculty, educational technologies, and variations in how knowledge is produced and shared. For example, artificial intelligence and associated large language models, such as ChatGPT, evolved during and immediately after the COVID-19 pandemic when higher education instruction and assessment moved to virtual spaces. This phenomenon has created a new aspect in the discussion of academic integrity (Perkins, 2023), including strong opinions against the use of ChatGPT in U.S. English learner contexts (Caplan, 2023). Thus, the views of authorship held by contemporary college students world-wide might be more nuanced than the views held by U.S. university policymakers. The multifaceted reasoning as to why some international students experience plagiarism has led to continued debate and confusion in U.S. IHEs regarding how to address such plagiarism (Bloch, 2012).

How U.S. Institutions of Higher Education Communicate About Plagiarism

Hoekje and Stevens (2018) asserted, "Probably no topic in the academy is more fraught with moral judgment than plagiarism…. And yet no subject is as obscure to many students" (p. 172). U.S. IHEs typically address plagiarism as misconduct or cheating, consistent with the theft and moral failing metaphors, and place policies to address such academic misconduct in student handbooks or course syllabi. Even though an IHE's stated consequences of academic misconduct are typically punitive, reports of student plagiarism persist. How IHEs set the tone about and communicate responses to academic misconduct and plagiarism is important because their conceptualization of plagiarism ultimately affects how they handle these issues with students (Fishman, 2016; Young et al., 2018). Unfortunately, students rarely adhere to academic integrity policies just

because IHEs communicate that it is the students' moral imperative to do so; rather, academic misconduct policies are effective mostly due to their punitive consequences (McCabe et al., 2012). Although honor codes have been found to be somewhat effective at deterring student cheating, they are more effective when combined with a campus culture of consistent messaging for informing and educating about academic integrity (McCabe & Treviño,1993).

Although campus culture and consistency have been shown to be important in deterring academic misconduct such as plagiarism (McCabe & Treviño, 1993; Young et al., 2018), students need to read and comprehend the messaging. A survey of domestic students in Australia found that only half of them read the institution's academic integrity policies and that these students were still confused regarding what constitutes plagiarism, perhaps because of "information overload" (Gullifer & Tyson, 2014, pp. 1213). International students specifically, who are already dealing with information overload and acculturative stress (Sullivan & Kashubeck-West, 2015; Zhou et al., 2011), may have even more trouble reading and comprehending such policies. In fact, Taylor and Bicak (2019) found that the academic integrity policies at 453 U.S. universities averaged 2000 words written at a 16th-grade English reading level. The length and complex readability of such policies can create a barrier for not only international students with still-developing English literacy but also domestic students.

Some scholars take issue with institutions' inclusion of plagiarism within the policies of academic integrity, considering that many matters of plagiarism are not intentional acts with the goal of deceiving others (Fatemi & Soto, 2020; Fishman, 2009, 2016; Howard, 1995; Pecorari, 2003). Evering and Moorman (2012) found that

plagiarism is often conflated with other matters of academic misconduct. These authors argued that units across an institution need to reach a consensus on what constitutes plagiarism so that such instances (e.g., lack of citation) are not treated in similar ways to copying the text of someone else without acknowledgement. Plagiarism is nuanced not only in scope and seriousness but also in intentionality, converting an ethics-laden concept like academic misconduct into an inappropriate classification in most cases. With the concept of plagiarism so contested and complicated in the United States, and with cases on a continuum from intentional to unintentional, a consensus exists among these scholars that IHEs should reexamine their respective plagiarism policies.

The scholarship regarding plagiarism in the United States shows a lack of clarity regarding definitions and treatment. This lack of clarity becomes more pronounced in the context of increasingly diverse student populations. Although scholars have attempted to arrive at a consensus of why international students plagiarize, the reasoning may be multiple. In other words, plagiarism is often tied to culture, language, information overload, citation practices, and lack of skill in using sources. Yet very few studies have investigated the concept of plagiarism from the perspective of international graduate students in the United States. In an attempt to fill this gap, I conducted the current study.

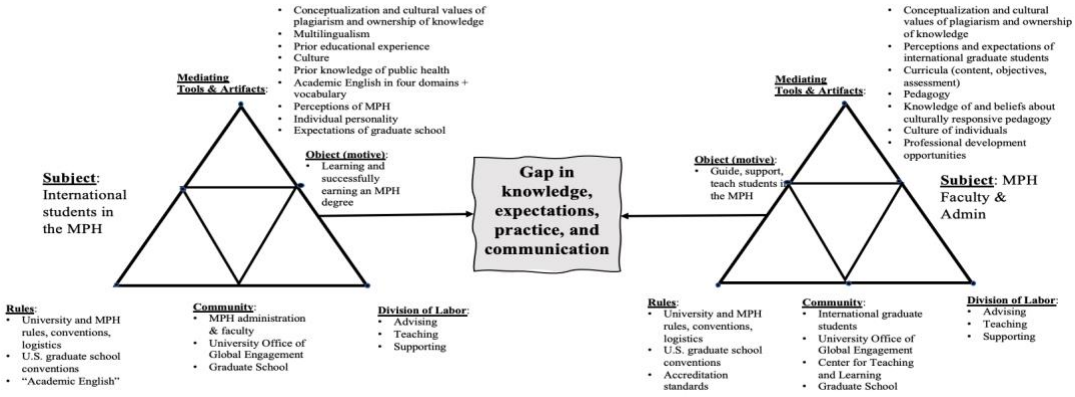
Theoretical Framework

Because this study addressed issues that are highly contextual, I employed Engeström's (2001) Cultural-Historical Activity Theory within the research design and analysis. Cultural-Historical Activity Theory, derived from constructivism (Vygotsky, 1978), provides a framework for observing the interactions between two activity systems.

In this case, the two activity systems are the MPH program and the international students in that program. An activity system includes a subject that tries to reach an object or goal via the use of mediating artifacts such as signs or tools. These fixed components are influenced by social factors such as rules, larger communities, and the division of labor. Figure 1 shows the interaction of the activity systems of the MPH program and the international students enrolled in the MPH program.

Figure 1

Cultural-Historical Activity Theory Applied to This Study



Note: Adapted from "Expansive Learning at Work: Toward an Activity Theoretical Reconceptualization," by Y. Engeström, 2001, *Journal of Education and Work*, *14*(1), p. 136. https://doi.org/10.1080/13639080020028747. Copyright 2001 by Taylor & Francis.

As illustrated in Figure 1, an activity theory is an "interventionist framework" (Cong-Lem, 2022, p. 1106) that is dynamic rather than fixed. Because activity systems can be amended or changed, the framework is useful for identifying gaps between activity systems and opportunities for change to alleviate such gaps. The space between the activity systems is a "shared problem space" between the two systems (Akkerman &

Bakker, 2011, p. 147). Ideally, after two systems adjust, the problem space between them is lessened, indicating decreased complications and increased coordination.

Activity theory has been useful in identifying and alleviating gaps in expectations and understanding with respect to international students at IHEs in the United States. Examining the activities within and between systems helps identify multiple opportunities for adjusting various systemic factors rather than focusing on just the subject (e.g., international students) as the component that needs to be changed. For example, an analysis of international students' writing development revealed opportunities to improve writing supports by adjusting the mediating factors (Son, 2022). In this case, mediating factors included a first year writing course and writing center consultations. Here, the application of activity theory allowed an asset perspective of international students because the framework showed the relationship between students' learning and the systems within which they were participating. For the current study's data analysis and interpretation, utilizing an activity theory framework allowed the complications within and between activity systems (i.e., the students and the MPH) to come into clearer view rather than focusing on the international students as the sole factor needing adaptation.

Methodology and Research Design

Purpose of the Study

I derived this plagiarism-focused study from a larger study in which I had attempted to determine general academic challenges of international graduate students in the MPH by first surveying and then interviewing participants from three stakeholder

groups–the international graduate students, the MPH faculty, and the faculty and staff from the campus's English language support unit. From that larger study, a theme emerged related to academic integrity and plagiarism. Thus, my purpose in this current study was to identify what challenges with plagiarism, if any, the international graduate students in this MPH have experienced, the nature of their experiences, and possible adaptations to the program and institution to help minimize reports of plagiarism.

Research Design and Methods

To explore the interaction between two activity systems (i.e., the MPH program and the international students in that program), I used a case study design with embedded explanatory mixed methods (Guetterman & Fetters, 2018). I chose this design to address these research questions regarding international students and plagiarism in this particular MPH program because understanding these specific activity systems requires a clear understanding of many dynamic components. This case study design is ideal to give a complete understanding of the case through examination of all data, including surveys, interviews, and artifacts (Yin, 2018). Embedding a mixed methods component permitted me to survey a broad range of faculty and students and then tailor interview protocols to explore the resulting survey themes in greater depth. Integrating these data sources within the case study allowed multiple types of data to show a clear picture of the activity systems and, thus, generate robust implications regarding best practices for supporting international students in the MPH. Additionally, prioritizing the qualitative strand of this study, particularly the international student perspectives, responded to Page and Chahboun's (2019) call for centering international students' stories in empirical research.

Study Context

I conducted this study at a large, regionally accredited R1 university (Doctoral University with Very High Research Activity). According to the university's website, of the approximately 7400 graduate students enrolled in Fall 2022, 15.4% were international students (F-1 visa holders). During that same time, 62 (10.5%) of the approximately 590 students in the MPH were international students. The MPH program is accredited by the Council on Education in Public Health, which has the pedagogical goal of preparing students to enter the public health workforce rather than to work in academia. The university's Office of Global Engagement, as a supplemental campus unit, houses an English language program that supports international students through formal classes and informal workshops for concurrent or future matriculation into university academic programs, such as the MPH.

Data Sources and Sampling

Data sources for this study included artifacts such as syllabi and university web pages, closed-ended surveys (quantitative), and semi-structured interviews (qualitative). Based on scholarship regarding academic challenges of international graduate students, I composed two unique surveys in Qualtrics, one for international students in the MPH and one for MPH faculty, and then revised them based on feedback from stakeholders. The preliminary survey analysis revealed themes that guided me with developing the interview protocol for each group. The entire study was approved by the site's Institutional Review Board.

For the current study, the two sampling frames were the MPH faculty and the international students enrolled in the MPH program. Sampling for the quantitative survey strand was purposive (Teddlie & Tashakkori, 2009) based on invitations that I emailed to prospective participants. Those who accepted the invitation were emailed a link to the corresponding Qualtrics survey.

For the subsequent, qualitative strand, I used sequential mixed method sampling (Patton, 2015). The final item on the quantitative survey for faculty invited participants to consider participating in a 20-minute virtual interview. From among the 10 faculty volunteers, I randomly chose five. International students were invited via email by the MPH key informant to participate in a 20-minute virtual interview. After I interviewed four initial student volunteers, a key informant from the Office of Global Engagement recruited four additional international students in the MPH for the student data to reach saturation. In total, I interviewed eight international students in the MPH.

Participants

Participants for this study included faculty and international graduate students in the MPH program. For the quantitative strand, surveys were completed by 11 MPH faculty and 9 international students; the response rate was 25% for MPH faculty and 15% for international MPH students. For the qualitative strand, I interviewed four full-time MPH faculty and one teaching assistant, for a total of five faculty interviewees. I also interviewed eight international students, which included five students from India and three from Pakistan. All eight students had prior educational instruction in English in their home countries. Three students were in their first semester of the MPH program,

four were in their third semester, and one was in the fourth and final semester. Coincidentally, all of the international students who agreed to be interviewed were female. These home country and gender demographics represent the IGS population in this MPH program at the time of this study. Institutional records showed that 60% of the IGSs in this MPH were from either India or Pakistan, and 79% of all students in this program were female.

Data Collection and Analysis

Because of the sequential design of the study, I first collected and analyzed quantitative data from the complete surveys. I conducted this quantitative data analysis by using IBM's SPSS Statistics for Mac, Version 27. Because of the small sampling frames, the number of completed surveys in each group did not allow for inferential statistics. However, I computed frequencies and averages to direct the topics of inquiry for the subsequent interview protocols.

Next, I collected and analyzed qualitative data. After receiving consent from potential participants, I conducted individual interviews on the university's Zoom platform. These interviews were audio-recorded and then automatically transcribed by Rev.com. I reviewed the transcripts, corrected any errors, and shared each edited transcript with the corresponding participant for member-checking (Merriam & Tisdell, 2015), thus allowing participants to voluntarily clarify and add further commentary.

After participants had reviewed and returned the transcripts, I uploaded those documents to NVIVO qualitative data analysis software for coding. The first round of coding was descriptive (Saldaña, 2016) using Research Question 2, "What are

international graduate students' experiences with plagiarism in this MPH?" On the student interview protocol, the primary interview question asked about students' perceptions and challenges with academic integrity and plagiarism in the United States and, specifically, in the MPH. On the faculty interview protocol, the primary interview question asked about faculty's experiences with plagiarism and international students. However, because the interview questions allowed for open-ended responses (Patton, 2015), other interview questions also led to responses regarding academic integrity and plagiarism. Therefore, any mention of academic integrity or plagiarism by any respondent was descriptively coded.

I conducted a second round of coding using two themes that organically emerged from the first round of coding, which were experiences with plagiarism and suggested support regarding plagiarism. These two themes aligned with Research Question 2, "What are international graduate students' experiences with plagiarism in the MPH?" and Research Question 3, "Based on the perceptions of international students and faculty in the MPH, what support is needed to minimize reports of plagiarism?"

To add to this case study's qualitative data, I analyzed websites and documents. Because this study investigated international students' challenges and experiences with plagiarism in the MPH, I needed to observe the general communications and instructions that these students had received from the university and MPH regarding academic integrity and plagiarism. To do this, I analyzed the university's academic integrity and plagiarism policies that were provided online and the department's policies that appeared in course syllabi.

I integrated the quantitative and qualitative data strands throughout the study and again at the end of this study. To integrate the quantitative and qualitative data, I followed Creswell and Plano Clark's (2018) guide for connecting strands in explanatory sequential mixed methods studies. First, I connected the strands by using the quantitative results to identify areas of inquiry regarding plagiarism that needed more explanation in the qualitative strand. In the case of MPH faculty, the sampling for the quantitative and qualitative strands was also connected because faculty interview participants were recruited solely from the quantitative strand. Following the analysis of the qualitative interview data, I examined ways in which results from the quantitative strand were explained by or discordant with findings from the qualitative strand. Finally, in the interpretation stage, I considered how the qualitative results (interviews, websites, and documents) helped explain the quantitative results.

Findings

In this case study with explanatory sequential mixed methods, I collected and analyzed three types of data: quantitative survey data, qualitative interview data, and website and document data. Following is an overview of the results that emerged from this data analysis.

Quantitative Results: Surveys

The surveys of MPH faculty provided the following results. Six of the 11 faculty respondents (55%) felt that international students demonstrated frequent challenges at understanding and applying standards of source use (summarizing, paraphrasing, citing

sources, avoiding plagiarism). Eight of the 11 faculty respondents (73%) felt that international students or both international and domestic students experienced these challenges. These results are illustrated in Table 1.

Table 1

MPH Faculty Regarding Students Applying Standards of Source Use

Survey responses of MPH faculty and administrators regarding MPH students' challenges n = 11	Thinking of all of the MPH students you've taught, which students (domestic and/or international) demonstrate frequent challenges with the following tasks? - Understanding and applying standards of source use (summarizing, paraphrasing, citing sources, avoiding plagiarism) Number of faculty reporting challenges (percentage of total)
Neither domestic nor international	2 (18.2%)
Domestic	1 (9.1%)
International	6 (54.5%)
Both domestic and international	2 (18.2%)

In the surveys of international MPH students, these students were asked to rate the importance of using sources in their writing to avoid plagiarism. All of the students who completed the survey chose "Very important" regarding using sources to avoid plagiarism in their writing. However, when asked how successful they perceived themselves to be in comprehending assignment instructions and synthesizing multiple sources of information in their writing, some students felt as if they were slightly successful or not at all successful with those tasks. Table 2 shows these values.

Table 2

International Students' Perceived Success with MPH Tasks

Survey responses of MPH international students regarding their perceived success n = 8	How successful have you been with completing the following academic tasks? - Comprehending project or assignment instructions Number of students (percentage of total)	How successful have you been with completing the following academic tasks? - Synthesizing multiple sources of information in writing Number of students (percentage of total)
Very successful	3/33.3%	2/22.2%
Somewhat successful	3/33.3%	3/33.3%
Slightly successful	1/11.1%	2/22.2%
Not at all successful	1/11.1%	1/11.1%

As shown in Table 2, the results from the international MPH students regarding their perceived success at comprehending assignment instructions show that while 33% perceive themselves as very successful, 22% consider themselves slightly successful or not at all successful with this task. Additionally, when rating their perceived success at synthesizing sources in their writing, 33% rated themselves slightly or not at all successful with this task.

In summary, the quantitative results suggest that the surveyed MPH faculty felt that their students, particularly international students, are challenged with avoiding plagiarism. The international students, according to the data, recognize the importance of using sources in appropriate ways to avoid plagiarism. However, overall, they are less confident that they are successful in synthesis writing and avoiding plagiarism. These results informed the interview protocol questions regarding plagiarism. Also, these results

guided my probing questions of MPH faculty and international students during the interviews when the topic of plagiarism would arise.

Qualitative Findings: Websites and MPH Syllabi

In addition to conducting interviews, I analyzed the institutional academic integrity webpage materials as well as the MPH syllabi. I sought to fully understand the communications regarding plagiarism and academic integrity that international MPH students receive as well as the institutional and departmental cultural contexts regarding plagiarism and academic misconduct. Throughout my analysis, I made notes regarding definitions, explanations, and examples.

Institution's Academic Integrity Webpage

The institution has several multimodal resources regarding academic integrity on its website. On a webpage regarding the academic integrity code, the institution explains that the academic integrity code is necessary to hold the members of its institution to high ethical and professional standards and uphold this institution's mission statement. This page offers quotations from students and a short video of students giving their views on the meaning of academic integrity, its importance, ways to maintain academic integrity, and examples of infractions. This webpage provides links to the required academic integrity code course in the institution's learning management system and a list of frequently asked questions regarding academic integrity. A link to the full version of the academic integrity code led to a 21-page Portable Document Format (PDF) outlining

definitions and consequences of academic misconduct, including plagiarism and self-plagiarism.

Plagiarism is included in the PDF of the institution's academic integrity code. Plagiarism by this institution is defined as "claiming as your own ideas, words, data, computer programs, creative compositions, artwork, etc., done by someone else" (institution's Academic Integrity Code PDF, p. 2). The PDF also includes examples of what constitutes plagiarism as well as descriptions of minor, moderate, and major plagiarism "offenses" (institution's Academic Integrity Code PDF, p. 16) as well as a guide for faculty and administrators in determining the severity of cases of plagiarism.

MPH Syllabi Sections on Academic Integrity

To analyze the content and language regarding academic integrity and plagiarism in the six core MPH course syllabi, I looked for specific policy statements in each syllabus. According to the key informant in the MPH program, as of Fall 2021, all MPH syllabi use a template of the basic policies. All of the international students in this study would have had access to these basic policies via their syllabi and would have signed a statement that they read and understood these policies. The syllabus template includes a section on academic integrity that directly refers students to the institution's academic integrity webpage. Therefore, communications from the department regarding academic integrity were mirrored in the policies provided in MPH course syllabi.

Qualitative Findings: Interviews

I descriptively coded data from interviews with MPH faculty and international graduate students, and then I further coded data along two themes: "experiences with plagiarism" and "suggested support regarding plagiarism."

Experiences with Plagiarism

I asked both MPH faculty and MPH international students about their experiences with plagiarism in the MPH. International students described experiences with plagiarism that coincided with citation practices, cultural differences in use of knowledge, an understanding of assignments, and information overload. For example, Student-3, from India and in her first semester in the program, referenced citation practices: "Everything is correct, but I am not citing properly. That's why I feel I got a plagiarism in that assignment." This student described her plagiarism as accidental and attributed her mistake to a lack of knowledge regarding citation practices in the MPH. Student-2, in her third semester, attributed her experience with plagiarism to differences in the definition of plagiarism in the United States compared to her home country of India. In India, the student explained, the expectation is that the classmates' submitted assignments will be similar because everyone draws from the same sources. According to Student-2, however, if classmates in the United States have even a few similar words, they might be accused of plagiarism.

MPH Faculty-4 expressed cognizance of the difference in the use of knowledge in some countries compared to the United States and how that difference could affect international students in the MPH program:

> I think the very unique challenge is, especially if you have trained in certain cultures, which are very authoritarian, citing "experts" extensively . . . was actually considered a mark of good scholarship because, who the heck were you as a nobody student to be giving your own opinions, right? So, you were supposed to basically cite the experts and your entire essay should be nothing but a series of different experts whose opinions you were sort of presenting in your own words.

Rather than attributing international students' plagiarism challenges to the granularity of citation practices, this faculty remarked on how knowledge is created or expressed differently in other countries and cultures. She alluded to the fact that, in the United States, students are asked to synthesize outside sources with their own views on topics. By contrast, the expectation in many other cultures is that students will simply reiterate the views of experts, including the professor, as a sign of respect.

Two students explained that not understanding instructors' expectations for assignments led them to collaborate, which led to plagiarism consequences. Student-5, from India and in her first semester, described how she tried to help an international student peer understand an assignment and then was accused of plagiarism after the peer submitted the same written answers. In hindsight, she seemed to realize that she should not have shared her assignment answers with a peer. However, she also indicated that she never expected the peer to copy, paste, and submit the assignment as the peer's own work. Although the peer did not understand the matter of plagiarism, or chose to disregard the policies, Student-5 seemed to grasp that copying and pasting another's work is considered plagiarism in the MPH.

Student-8, from Pakistan, had a similar experience with helping a peer. She attributed this to not understanding "things" and to being new to the United States:

> And it was really accidental because we were new here. We don't understand the things very well in the start. We struggle a lot more than the students here. So, we just help each other that how can we do the assignments and whatever. So, this happened to me accidentally.

Twice when describing this experience, Student-8 referred to her plagiarism experience as a mistake—as accidental. She also compared the struggle of international students to that of domestic students.

The experiences of these international students seemed similar to what MPH Faculty-1 described. This faculty member experienced international students copying each other's work, which she distinguished as different than students inappropriately using secondary sources. Faculty-1 seemed to grasp that copying another student's work, while still considered plagiarism, is a different act than copying text verbatim from the internet.

Throughout their interviews, international graduate students in the MPH referred to being overwhelmed with information overload. Student-3, from India and in her first semester in the program, used the collective pronoun "we" in her explanation as to why international MPH students might experience plagiarize issues: "We do not know about the whole rules and regulations, that's why we make a mistake. But in this first semester, is really difficult for all the international students to learn about the education system of the U.S.A." However, Student-4, also a first semester student from India, expressed certainty that she had

> been listening, hearing about [academic integrity] from Day One. So, each and every person here since orientation have been telling me, 'You have to be very careful about this. You don't have to share your answers. You cannot discuss it, unless it's, told to you to do so.' From teachers to students to everyone.

Although Student-3 admitted to not knowing the "rules and regulations," Student-4 was adamant that the program made students aware of the importance of academic integrity and avoiding plagiarism. Other students echoed Student 4's experiences. Many reported that the MPH program and the university communicated to students about academic integrity and plagiarism on a regular basis. However, although these international graduate students seemed to grasp the importance of upholding academic integrity and avoiding plagiarism, their understanding of what actually constitutes plagiarism and how to avoid it does not seem clear to them.

Suggested Support Regarding Plagiarism

During the interviews, I asked both MPH faculty and international students about necessary support for international students to be successful in the MPH. International students described that, even though they are aware of academic integrity and plagiarism policies, they need explicit instruction with clear explanations about expectations and citation practices. Student-5, whose peer copied and submitted her assignment as their own, provided a representative comment of confusion that is similar to those of the other seven international students interviewed: "But sometimes I have thought, what should I do? And what should I not do? So, [I'd like instructors] to be more clear and more

precise." Student-2, from India and in her third semester in the program, suggested that the MPH should provide clearer information regarding how to do each assignment as well as one or two lectures on how to avoid plagiarism. What Student-2, notably almost finished with the MPH program, asserted here is that the communications of academic integrity codes and module videos are not enough. In her opinion, she and her peers need explicit instructions not only about how to complete assignments but also about how to avoid plagiarism.

The MPH faculty interview questions regarding support were phrased as follows: "What types of support do you feel that your international students, specifically, need in order to be successful in your courses?" and "Is there any specific additional support that you feel you need in order to successfully teach international students specifically in the Master of Public Health program?" Despite the number of MPH faculty in the survey who indicated that international students were challenged with plagiarism, none of the participating MPH faculty answered either of these two questions with desires for resources or support in dealing with student plagiarism.

Limitations

As with any empirical study, some limitations should be addressed. Although this study begins to fill a gap in scholarship regarding how international graduate students experience plagiarism in professional graduate programs in the United States, I recognize that the themes and experiences of these particular graduate students and faculty may be different from those in other programs and at other institutions. Additionally, the number of students and faculty who answered the survey and were interviewed represents just a

fraction of those in this particular MPH program, and, thus, the findings cannot necessarily be assumed to be the perspectives of all international students and faculty in this MPH. Finally, all of the international students I interviewed for this study happened to be female and had prior education experiences in English. Hence, their challenges and experiences might be different from male students as well as from students whose prior learning was exclusively in a language other than English.

Ensuring Quality and Trustworthiness

Quality in mixed methods research includes ensuring quality of the individual quantitative and qualitative strands, reviewing quality of the inferences from those strands, and focusing on quality based on the specific mixed methods design (Plano Clark & Ivankova, 2016). Quality in quantitative methods rests on the validity and reliability of the instruments used (Plano Clark & Ivankova, 2016). Admittedly, the sample sizes for the completed surveys in this study were quite small; thus, I could not draw meaningful statistical inferences from the data. However, the survey results were useful as frequencies and percentages that directed the thematic content of the subsequent interview protocols. Quality in qualitative methods is usually assessed through trustworthiness and credibility of the study (Plano Clark & Ivankova, 2016). I took the steps of triangulation, member checking, researcher engagement and reflexivity, and peer review to ensure trustworthiness and credibility of the qualitative data and inferences (Merriam and Tisdell, 2015).

Overall, mixed methods quality is an aggregate of the quality of the inferences drawn from the individual quantitative and qualitative strands as well as the quality of the integration of those inferences (Plano Clark & Ivankova, 2016). I integrated results from

the quantitative strand with the findings from the qualitative analyses to not only help explain results but also provide a more robust picture of international students' challenges with and perceptions of plagiarism in the MPH program.

Integrated Discussion and Implications

My purpose with this study was to identify what challenges with plagiarism, if any, had been experienced by international MPH students and the nature of their experiences as well as to explore possible adaptations to the program and institution to help minimize plagiarism issues. To fulfill this purpose, I sought to prioritize international student voices to understand their perceptions of plagiarism in the MPH program. To answer the research questions that directed this study, I surveyed and interviewed international students and faculty in the MPH and examined communications regarding plagiarism published in university and department documents such as websites and course syllabi. Using Engeström's (2001) Cultural-Historical Activity Theory framework, I also identified components of the activity systems that could be adjusted to reduce the gap in knowledge, expectations, practice, and communications between the MPH program and the international students in the MPH.

Research Question 1: "Do MPH faculty and international students perceive that international students are challenged with the concept of plagiarism?"

According to the MPH faculty surveys, the international students in this program experience challenges with avoiding plagiarism related to appropriate source use. This perspective aligns with Park's (2003) assertion that international students studying in post-secondary contexts are considered "persistent plagiarisers" (p. 480) and provides

exigence for the numerous studies conducted on the topic of plagiarism and international students in the United States. Relatedly, the international MPH students whom I surveyed are confident that they understand the importance of avoiding plagiarism, but not all of them felt that they were successful in understanding assignment expectations and appropriately synthesizing multiple sources of information in their writing. Students' conceptualizations of plagiarism may be varied because of their diverse cultural and educational backgrounds (Evering & Moorman, 2012; Kim & Uysal, 2021). The survey data demonstrated that international students in this MPH probably understand that avoiding plagiarism is important and admit their challenges with synthesizing sources and understanding assignment expectations. However, they are unclear regarding how to avoid plagiarism, as they described and also as demonstrated by the perspectives of their MPH instructors.

Research Question 2: "What are international graduate students' experiences with plagiarism in this MPH?"

To fully grasp international students' experiences with plagiarism in the MPH, it is important to also understand the academic integrity policies of the institution and department. The institution's policies, included in the MPH course syllabi, provided multiple modes and student perspectives in communicating the institution's culture of academic integrity. Furthermore, the full policy was easy to find and provided examples as well as definitions of intentional and unintentional plagiarism, such as defined by Fatemi and Saito (2020). However, in the institution's full academic integrity policy, even minor plagiarism occurrences were called "offenses," which echoes the "moral weakness, willful misconduct, duplicity, or wrongdoing" connotations offered by

Fishman (2016, p. 13). According to the institution, a minor or even moderate offense of plagiarism could result from a missing citation, even if the student acknowledged the information came from a secondary source. As shown by McCabe et al. (2012), these punitive academic misconduct policies reduce cases only because they create fear in students. Moreover, they communicate a campus culture that punishes rather than educates (McCabe & Treviño, 1993).

Citation mistakes are a reality for the international students interviewed for this study; for example, one student stated that she did not know how to do citations (Student-3). A lack of knowledge of how to appropriately cite sources shows a difference in students' prior academic culture compared to the academic conventions in the United States (Bista, 2011; Handa & Power, 2005). Many international students may have come from "very authoritarian" cultures in which students were expected to heavily draw upon the "experts" by presenting them "in your own words," as described by MPH Faculty-4. Knowing when to draw upon experts and when to use one's own authorial voice is a cross-cultural difference that needs to be taken into consideration in matters involving international students and suspected plagiarism.

Interviewed students also mentioned other cultural differences between their prior educational contexts and that of this MPH program in the United States, specifically in regard to understanding assignments and supporting each other in the program. Although the interview and survey data showed that these students understand the importance of avoiding plagiarism, these students are from India and Pakistan, which are non-Western cultures. Students from non-Western cultures may find it acceptable to help each other with academic work, perhaps because of collectivist values (Ageyev, 2003; Bista, 2011).

Additionally, students from India (Ison, 2018) and Pakistan (McCulloch & Indrarathne, 2022) may not fully understand what plagiarism is from a U.S. perspective nor know how to avoid it.

The data used to answer Research Question 2 demonstrated multiple experiences of international students regarding plagiarism. These students described having experiences that stemmed from cultural differences, not comprehending assignment instructions, not knowing how to provide attribution according to the conventions of the MPH, and needing greater clarity regarding what specifically constitutes plagiarism. Most of these experiences could be categorized as accidental or unintentional plagiarism.

Research Question 3: "Based on the perceptions of international students and faculty in the MPH, what support is needed to minimize reports of plagiarism?

After determining that the international MPH students were challenged with avoiding plagiarism and upon identifying reasons why they have higher rates of plagiarism than the domestic MPH students, I investigated perceived support needed by these students. I triangulated all sources of data to arrive at some ways in which the activity systems of the MPH program and of the international students could be augmented to close the gap in knowledge, expectations, practice, and communication between the two activity systems. To that end, reducing this gap ideally would result in fewer reports of plagiarism committed by international MPH students.

Despite MPH faculty survey data showing that international students might be challenged with the concept of plagiarism, the interviewed faculty did not express a need for support regarding international students and plagiarism. However, international students whom I interviewed suggested that the MPH and university need to provide

explicit explanation regarding assignment expectations and the corresponding "rules and regulations" (Student-4). The MPH program makes students aware of the importance of avoiding plagiarism, as demonstrated by the reference to the larger institution's policies in the syllabi and by students' interview data. For example, Student-4 asserted that she had "been…hearing about [academic integrity] from Day One." Student-2, in her third semester in the program, suggested very specifically that if the MPH would clearly explain how to do the assignments and explain the program's conceptualization of academic integrity, all international students would benefit.

These students are seeking education, which aligns with the call by scholars that institutions and departments take an educative rather than a punitive approach to addressing plagiarism (Evering & Moorman, 2012; Fishman, 2016; Hu & Yu. 2023; Sefcik et al., 2020; Young et al., 2018). What follows are ways that the activity systems in this study can be augmented to close the gap in knowledge, expectations, practice, and two-directional communications (Uehara et al., 2018) regarding plagiarism.

Implications

Critically Examine MPH's Mediating Tools and Artifacts

Indeed, scholarship regarding how to minimize reports of plagiarism focuses on what institutions can do, such as reframe the culture surrounding academic integrity and plagiarism: "It is now recognized that academic integrity is not just about students. Assessment validity, pedagogical practices, institutional processes, campus norms, and faculty and administrative staff conduct all contribute to the climate of integrity on a given campus" (Fishman, 2016, p. 16). Although academic integrity policies and honor

codes have been shown to have some deterrent effects (McCabe & Treviño, 1993; McCabe et al., 2012), scholars advocate for an educative rather than punitive approach to plagiarism (Evering & Moorman, 2012; Fishman, 2016; Hu & Yu, 2023; Sefcik et al., 2020; Young et al., 2018). Changing institutional culture regarding academic integrity, specifically plagiarism, can include a reframing of how plagiarism is conceptualized, from a moral weakness to a literary or rhetorical practice (Leask, 2006; Robillard, 2009; Valentine, 2006). Scholars have also charged institutions to develop consistent, clear definitions of what constitutes plagiarism (Howard, 1995; Sefcik et al., 2020). Separating plagiarism from acts of academic misconduct can be a move toward an educative rather than simply punitive response to suspected plagiarism. These implications can also be considered by other higher education institutions and departments.

Augment the Division of Labor (Faculty)

Faculty can contribute to an educative climate regarding academic integrity and plagiarism (Sefcik et al., 2020) once they recognize that most students, international and domestic, likely arrive to a new educational context without knowing the academic rules or conventions (Handa & Power, 2005). For example, faculty can model for students how they themselves uphold academic values (Young et al., 2018). They can also clarify expectations and lead discussions regarding copyright and authorship (Evering & Moorman, 2012) as well as discussions of students' diverse views on plagiarism (Uehara et al., 2018). One way faculty can deter potential plagiarism is to make assignments difficult for students to plagiarize intentionally or even unintentionally (Evering & Moorman, 2012; Samel, 2022). Clearly written assignment instructions with models

would be helpful for students, because then students could see a successfully completed assignment on which to base their own work. Faculty can also move toward more culturally inclusive and educative classroom practices that recognize diversity in worldviews and education backgrounds while also allowing students to practice skills in using academic literacies expected in the specific learning context (Handa & Power, 2005). In-class or supplementary workshops for students to practice writing in the content area on topics of interest for all students would do more to deter plagiarism than simply a syllabus policy statement. Additionally, teaching students to analyze and comprehend assignment instructions would help students be more confident in completing coursework and to have a better sense of what questions to ask if they are confused about expectations. Caplan (2019) offered a matrix for guiding students to understand assignment instructions across disciplines. This matrix could be useful for all students if provided in an instructional webinar embedded in the course management system.

Draw Upon Expertise in the Community

The Center for Teaching and Learning is a Community member in the MPH program's activity system. The international education experts in this particular unit can provide support for MPH faculty and staff regarding cross-cultural communications and pedagogy, which would adjust the Mediating Tools of the system. This, in turn, should help students with avoiding unintentional or accidental plagiarism.

Additionally, the university's Office of Global Engagement is a Community member for both the MPH program activity system and the international student activity system. Instructors and administrators in the Office of Global Engagement unit are

experts regarding international students' prior educational contexts and academic acculturation challenges. This unit can help tailor MPH communications and materials regarding academic integrity for a more globalized student population. The unit can also provide workshops for all students on ensuring academic integrity, avoiding plagiarism, and using U.S. citation practices.

Finally, the University Writing Center should be added to the Community for both activity systems. Writing centers on university campuses can help students address academic writing challenges, including citation and authorship, and add an educative aspect to the culture of the MPH regarding academic integrity. The MPH should consider including the university's writing center information and mission in their communications to students, in syllabi, in classes, and in the learning management system.

Conclusion

The findings of this case study with sequential explanatory mixed methods found that, even though international students understand the importance of avoiding plagiarism, they are challenged with avoiding plagiarism. Furthermore, reasons are multiple as to why international students plagiarize–or are accused of plagiarizing--more than domestic students. Such reasons include differences in culture and education, especially how attribution and plagiarism are conceptualized and addressed; information overload and acculturative stress; and language differences, especially if students do not have the fluency in English for complex rhetorical tasks such as paraphrasing and citation. The implications from this study for this institution's MPH program and international student activity systems, and also for other institutions that have similar

concerns with international students and plagiarism, are essentially focused on best practices for cross-cultural communications, culturally responsive pedagogy, and creating institutional and departmental cultures in which the priority is education rather than punishment.

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SUMMARY

Introduction

The purpose of this dissertation was to identify the challenges specific to IGSs in an MPH program and provide suggestions for IGS support in this MPH program, the pathway program, and campus-wide services. This study used a mixed methods approach to better understand the experiences of IGSs in an MPH as viewed by the students themselves and the pathway and MPH faculty and staff who support them. To analyze and interpret the data, I employed Engeström's (2001) Cultural-Historical Activity Theory, which allowed me to map the existing activity systems of the IGSs, the MPH, and the pathway program in order to find gaps in knowledge and expectations that might be contributing to student challenges. Through my case study analysis, I found that overarching challenges for the IGSs included acclimating to the "pattern" of study in the MPH, adapting to a new educational context, and adapting to the written academic English used in the MPH and expected by the MPH faculty. Delving deeper into these themes revealed discrepancies between what is expected of students in the MPH and what the IGSs know. These discrepancies were related to IGSs' capacity to quickly adapt to instructional technology, the learning practices of their home educational environment, and their fluency in using English for academic purposes. Overarching themes of support, or how to minimize these challenges, include increased resources for the pathway program, advanced orientation for IGSs, more communication among campus units that work with and have expertise in supporting IGSs, more attentive and culturally

responsive academic advising, and professional development for MPH faculty focused on how to teach the diverse IGS populations.

What follows in this final dissertation section is a Summary of Results, an Integrated Discussion, Implications for Stakeholders, Limitations and Future Directions, and a Final Conclusion. This section is followed by References (those sources cited in the General Introduction and Summary) and Appendices (documents that supported the overall study).

Summary of Results

Research Question 1: What academic tasks are challenges for IGSs in the MPH program, according to MPH faculty, pathways faculty and staff, and IGSs?

Phase 1 was the quantitative strand of this mixed methods study and involved surveys of IGSs, MPH faculty and administrators, and pathway faculty and staff. The goal of this strand was to identify IGS challenges in the MPH. Scholars have researched the challenges of international students studying in U.S. IHEs (Canagarajah, 2002; Elturki et al., 2019; Heng, 2019; Koo et al., 2021; Kubota & Lehner, 2004; Sharma, 2018; Yan & Sendall, 2016). However, very little investigation has been conducted specifically regarding IGS challenges (Krsmanovic, 2021), and none that I found involve IGSs in an MPH program. Therefore, I first needed to know which academic tasks posed challenges for the IGSs in the MPH.

I conducted surveys of IGSs (Appendix A), pathway faculty and staff (Appendix B), and MPH faculty and administrators (Appendix C). In total, 8 IGSs (12% response rate), 7 pathway faculty and staff (58% response rate), and 11 MPH faculty and

administrators (25% response rate) submitted complete surveys. Percentages were calculated for each question on each stakeholder survey. Because of the small sample size, I could not compute inferential statistics. Table 1 shows survey data from MPH and pathway faculty and staff regarding their perceptions of IGS academic task competencies and challenges.

Table 1

Pathway and MPH Perceptions of IGS Competencies and Challenges

Task	Percentage of pathway faculty and staff reporting IGS competencies	Percentage of MPH faculty reporting IGS academic challenges
Reading/interpreting assignment instructions	80% = IGSs are very or somewhat competent	42% = IGSs are challenged
Writing academic texts	86% = IGSs are very or somewhat competent	50% = IGSs are challenged
Delivering oral presentations	71% = IGSs are very or somewhat competent	17% = IGSs are challenged
Source Use (accurate paraphrasing and quoting, using style guide conventions)	86% = IGSs are very or somewhat competent	50% = IGSs are challenged
Adhering to academic integrity rules (avoiding collusion and/or cheating on exams)	86% = IGSs are very or somewhat competent	42% = IGSs are challenged
Using technology	100% = IGSs are very or somewhat competent	17% = IGSs are challenged
Working in peer groups	71% = IGSs are very or somewhat competent	8% = IGSs are challenged
Adapting to the MPH workload	100% = IGS are very or somewhat competent	8.3% = IGSs are challenged

Notable with this table is that the pathway perceptions of competencies are only of IGSs who have come through the pathway program while MPH faculty perceptions of IGS challenges are of all IGSs—those coming through the pathway as well as direct-entry IGSs. However, the similarities and divergences in perceptions are still interesting. The pathway faculty had overall positive perceptions of IGSs regarding all surveyed academic competencies. The positive perceptions of pathway faculty aligned with those of MPH faculty regarding IGSs delivering oral presentations, using technology, and working in peer groups. However, the data showed some divergences in perceptions between the two faculty groups. MPH faculty also considered IGSs to be challenged with reading/interpreting assignment instructions, writing academic texts, using sources, adhering to academic integrity conventions, and adapting to the MPH workload. Although sample sizes were too small to make any definitive correlations, the discordant findings indicated a need for deeper review in Phase 2, the qualitative strand.

MPH faculty were also asked to report their use of pedagogical strategies that might be considered appropriate for teaching linguistically and culturally diverse classes by estimating how frequently (always, sometimes, never) they use specific pedagogical strategies. Those results are shown in Table 2.

Table 2

Frequency of MPH Faculty Use of Pedagogical Strategies

Pedagogical strategy	Self-reported frequency n = 10
Adapt language for linguistically diverse learners	Always 40% Sometimes 40% Never 20%
Review the syllabus the first few weeks of class	Always 80% Sometimes 20% Never 0%
Consider students' cultural background when planning curriculum	Always 60% Sometimes 30% Never 10%
Record lectures and post on the course management system	Always 60% Sometimes 30% Never 10%
Give feedback on language errors	Always 50% Sometimes 50% Never 0%
Provide examples of completed projects and assignments	Always 30% Sometimes 50% Never 20%
Use examples of content that model diverse perspectives	Always 60% Sometimes 40% Never 0%
Explain the U.S. public health positionality of examples	Always 50% Sometimes 50% Never 0%
Encourage students to attend office hours	Always 90% Sometimes 0% Never 10%
Recommend campus support resources	Always 90% Sometimes 10% Never 10%

As Table 2 shows, the majority of MPH faculty at least sometimes use the surveyed pedagogical strategies. Most faculty employ two strategies, “Encourage students to attend office hours” and “Recommend campus support resources.”

The surveys of IGS perceptions regarding their challenges in the MPH program included four direct entry IGSs and four pathway IGSs. I included surveys of direct entry IGSs for comparison and to add another dimension to identifying challenges perceived by IGSs. In comparing the perceived success in academic literacy tasks, the perceptions of the direct entry IGSs were slightly higher than the perceptions of the IGSs who had support from the pathway program. Table 3 shows these data by academic literacy task.

Table 3

Direct Entry IGS Perceptions Compared to Pathway IGS Perceptions

Academic literacy task	Direct entry IGS perceptions of success N = 4	Pathway IGS perceptions of success N = 4
Reading long academic texts	25% very successful 75% somewhat successful	40% somewhat successful 20% slightly successful 20% not at all successful
Reading statistical information	100% somewhat successful	60% slightly successful 20% not at all successful
Comprehending assignment instructions	75% very successful 25% somewhat successful	40% somewhat successful 20% slightly successful 20% not at all successful
Writing essay exam responses	50% very successful 50% somewhat successful	40% somewhat successful 20% slightly successful 20% not at all successful
Writing/preparing presentations	50% very successful 50% somewhat successful	40% somewhat successful 20% slightly successful 20% not at all successful
Synthesizing multiple sources of information in writing	50% very successful 50% somewhat successful	20% somewhat successful 40% slightly successful 20% not at all successful
Comprehending class discussions	75% very successful 25% somewhat successful	40% somewhat successful 20% slightly successful 20% not at all successful
Participating orally in class/group discussions	75% very successful 25% somewhat successful	20% somewhat successful 40% slightly successful 20% not at all successful

Communicating with professors or teaching assistants	75% very successful 25% somewhat successful	20% somewhat successful 40% slightly successful 20% not at all successful
Comprehending interactions among professors and students	50% very successful 50% somewhat successful	20% somewhat successful 40% slightly successful 20% not at all successful
Giving spoken presentations	25% very successful 75% somewhat successful	40% somewhat successful 20% slightly successful 20% not at all successful
Doing library/online research	75% very successful 25% somewhat successful	40% somewhat successful 20% slightly successful 20% not at all successful

Although the sample size for surveyed IGSs is small, these self-assessments of success in MPH literacy domains show that the direct entry IGSs perceived themselves as somewhat more successful compared to the IGSs who had support from the pathway program. This finding may seem counterintuitive, as direct entry students do not have access to all of the supplemental support of the pathway program. However, direct entry students frequently have higher English language entry scores than those who are directed into the pathway, which may explain the more positive self-perceptions. The findings shown in Table 3 showed that some of the surveyed pathway IGSs do not feel very successful in any of these tasks, and at least some feel only slightly or not at all successful. The negative self-perceptions of pathway IGSs warranted further investigation in the qualitative strand.

Although the qualitative strand (Phase 2) was the greater priority strand for this study, the analysis of these quantitative data (Phase 1) met several study goals. First, this quantitative analysis helped answer Research Question 1, which asked which academic

tasks are challenges for IGSs in the MPH. According to the surveyed pathway faculty and staff, pathway IGSs are very or somewhat competent in the tasks listed in the survey. However, MPH faculty and administrators communicated in Phase 1 surveys that the IGSs are challenged with reading/interpreting assignment instructions, writing academic texts, using sources, adhering to academic integrity conventions, and adapting to the MPH workload even though the majority of faculty implement culturally responsive pedagogical strategies. Finally, surveyed pathway IGSs do not feel as if they are very successful at any of the tasks in the survey. Thus, Research Question 1 was answered in three ways, from three unique stakeholder perspectives.

Second, this quantitative strand provided key information for the subsequent qualitative (Phase 2) strand. Because survey participants were asked to participate in a future survey, the quantitative strand (Phase 1) helped build the qualitative strand's sampling frame. Additionally, and importantly, the quantitative survey results provided key areas that I explored in more depth through the interviews in the qualitative strand (Phase 2) as guided by the following research questions.

Research Question 2: How do IGSs experience challenges in the MPH, according to MPH faculty, pathways faculty and staff, and IGSs?

Research Question 3: What support would be beneficial to IGSs in the MPH, according to MPH faculty, pathways faculty and staff, and IGSs?

Based on the preliminary themes of the quantitative survey strand and the existing literature in the field regarding IGS challenges, I developed three distinct semi-structured interview protocols, one for each stakeholder group (MPH faculty, pathway faculty and staff, and IGSs). The semi-structured questions were designed to allow participants to

expound upon the perceptions of themes that arose in the quantitative surveys. I conducted interviews with three pathway faculty and staff, five MPH faculty, and eight IGSs in the MPH who had received support from the pathway program. Table 4 shows profiles of the IGSs who participated in the interviews.

Table 4

IGS Interviewee Profiles

IGS	Secondary school Country	English-medium instruction?	Progress in the MPH	Gender
IGS-1	India	yes	Final semester	female
IGS-2	India	yes	Third semester	female
IGS-3	India	yes	First semester	female
IGS-4	India	yes	First semester	female
IGS-5	India	yes	First semester	female
IGS-6	Pakistan	yes	Third semester	female
IGS-7	Pakistan	yes	Third semester	female
IGS-8	Pakistan	yes	Third semester	female

Table 4 depicts general characteristics of the eight IGSs who were interviewed. Relevant to this study report is that all IGSs in this sample happened to be female from India or Pakistan and educated in English-medium post-secondary schools. These demographics are somewhat representative of the IGS population currently in the MPH program given a high percentage of females and of students from India and Pakistan.

Challenges

The most frequently recurring challenge that emerged in the IGS interviews was the challenge of acclimating to the "pattern of study" in the MPH. Participants remarked

specifically on pacing and workload of the MPH, acclimating to online delivery and the technology required for courses, and adapting to U.S. academic English language. In the view of IGSs, the MPH required the completion of more frequent assignments than they were used to in their previous educational experience. Additionally, IGSs were not familiar with the strong emphasis on educational technology, such as the course management system and computer programs. Finally, adapting to using and comprehending academic U.S. English was a challenge for these IGSs.

The most frequently recurring challenge among the pathway faculty and staff interviews was the challenge of IGSs adapting to a new educational context. According to the pathway faculty and staff, IGSs have the most challenges with adapting to online courses, adapting to the workload of the MPH, and feeling welcomed at the university. Pathway faculty and staff expressed concern that the IGSs' unfamiliarity with technology (e.g., course management system and computer software) caused difficulty for IGSs. They also recognized that IGSs were not accustomed to the heavy workload required by the MPH. Finally, pathway faculty and staff shared their opinion that IGSs often do not feel welcomed or as if they belong at this university.

The most frequently recurring challenge for IGSs mentioned by MPH faculty was written academic English. Some faculty noted that IGSs have difficulty with grammar and syntax. One faculty noted that there is a difference in the written academic English of IGSs who have prior educational experience in schools that teach in English compared to those IGSs whose prior schooling was in a language other than English. Improvement of academic written English over time among IGSs was mentioned by MPH faculty.

Research Question 2 asked about IGS challenges in the MPH from the perspectives of IGSs, pathway faculty and staff, and the MPH faculty and administrators. Some challenges overlapped among these three groups, such as the challenge with using academic English, learning technology, and adapting to the curriculum of the MPH. Other challenges were unique to a stakeholder group, such as IGSs feeling welcomed at the university.

Support

All eight IGSs mentioned various additional supports that they posited might help them and other IGSs be more successful in the MPH program. However, the overarching idea of deeper understanding encompassed many of the mentioned supports. IGSs spoke about the need for more support early in the program from an academic advisor who could help them acclimate to the logistics and expectations of the MPH program. Several IGSs also called for more support and understanding of IGSs across the university, indicating a desire for additional systemic support.

Pathway faculty and staff overwhelmingly expressed a need for increased resources to support IGSs in the pathway program. Specifically, these participants detailed a need for additional time for instruction and collaboration with units across campus. In addition to time, pathway faculty and staff expressed the need for additional personnel. In the interviews, pathway faculty and staff couched these desires of support with the goal of campus internationalization, which they see as a critical element on this campus.

MPH faculty interviews yielded two primary themes for supporting IGSs: advanced orientation and more communication with the Office of Global Engagement. For example, several MPH faculty members said that IGSs would benefit from acclimating to the MPH content and U.S. academic English language well in advance of their arrival to the campus. One suggestion was for incoming students to be pre-taught some of the basic MPH concepts in U.S. academic English via videos and pre-matriculation courses on the course management system and, thus, begin the acclimation process before arriving. According to MPH faculty, advanced orientation would also solve the problem of IGSs missing on-campus orientation because of late arrivals to the United States. MPH faculty also see a need for more frequent and direct communications with the Office of Global Engagement, which houses the pathway program. MPH faculty realize they need assistance from experts in working with IGSs, but they are unsure whom to contact.

Research Question 3 asked about what support each group—the IGSs, the pathway faculty and staff, and the MPH faculty—need in order to help IGSs be more successful in the MPH. Suggestions for support varied based on the group. IGSs want more accessible one-on-one support in the MPH as well as more support and understanding across the campus. Pathway faculty and staff want more time and personnel in order to provide better support for IGSs. And MPH faculty feel that the advanced orientation programs for IGSs would be beneficial as would more communication between the MPH and the Office of Global Engagement to collaborate in supporting IGSs.

Integrated Discussion

Research Question 4: Based on the challenges of IGSs in the MPH and the suggested support, how can IGS challenges in the MPH be minimized?

To answer Research Question 4, which was the mixed methods research question, I integrated the meta-inferences from Phase 1 (the quantitative strand), Phase 2 (qualitative strand), and from the artifact analysis.

Meta-inferences: Challenges

IGSs and the pathway faculty and staff perceive that the IGSs' main challenge in the MPH is acclimating to the educational context, which is consistent with published scholarship regarding international students and acculturation (Elturki et al., 2019; Koo et al., 2021; Yan & Sendall, 2016). For the IGSs in this study, this theme encompassed pace of instruction, workload, online course delivery and technology, and U.S. academic English. The perceptions of pathway faculty and staff were similar. However, pathway faculty and staff also emphasized that students might feel unwelcomed at the university outside of the pathway program, a concern also addressed in literature on IGSs (Glass et al., 2015; Kettle, 2017). Of the three pathway faculty and staff that I interviewed, their views regarding challenges in the MPH aligned well with the views of the IGSs.

The consensus among MPH faculty was that the IGSs are challenged in adapting to written academic English. However, they also mentioned other perceived challenges. Simpson et al. (2016) and other researchers have described the unique challenges for all graduate students in adapting to the academic writing tasks of their disciplines. However, several of the MPH faculty discussed issues with IGS writing, such as subject-verb

agreement and word choice. If indeed "Writing *is* public health," (Valladares et al., 2019, p. 94, authors' italics), then these MPH faculty and the public health field at large might consider how to better support and accommodate the presence of multilingual students and scholars in the field.

In this study, perhaps the largest gap in conceptualizations of IGS challenges in the MPH was apparent when I compared the pathway faculty and staff data to the MPH faculty data. While the pathway faculty and staff considered IGS challenges to be adjustment to the new educational context (including workload, online course delivery, and feelings of belonging), the MPH faculty expressed that IGSs are primarily challenged with academic writing in the MPH. Essentially, the two entities have different viewpoints, as demonstrated by the data and the different curricular outcomes and academic tasks required by the two programs.

Meta-Inferences: Desired Supports for IGSs in the MPH Program

In the interviews, IGSs were asked what supports they need to be more successful. MPH faculty and pathway faculty and staff were asked what supports they need to better meet the needs of IGSs. Table 5 displays those results.

Table 5

Joint Display of Desired Supports by Stakeholder Group

Participant group	Interview regarding desired support
International graduate students	More understanding of international graduate students (academic advising, support outside of the Office of Global Engagement)
Pathway faculty & staff	Increased resources (time and personnel)
MPH faculty	Advanced orientation
	More communication with the Office of Global Engagement

The data from IGSs show that these students desire more understanding and consideration of their positionality as IGSs in this MPH and university. They wish for more accessible and attentive academic advising as well as increased support beyond the pathway program and Office of Global Engagement. Glass et al. (2015) and Kettle (2017) addressed cross-campus support of international students specifically, and both stressed that inclusivity and intercultural communicative competence need to be integrated across all systems of the institution, not just within the units that specifically support international students.

Regarding the needed support to better serve IGSs, the data from both the pathway faculty and staff and the MPH faculty are more aligned with each other: both desire resources to better support IGSs. The pathway faculty and staff want increased time and personnel to address curricular changes and communication with academic areas across the university. The MPH faculty expressed that advanced orientation for IGSs, in addition to more communication with the pathway program and Office of Global

Engagement, would help them better serve IGSs. Making these desires a reality, though, requires resources such as time and personnel that, unfortunately, are scarce in IHEs.

Implications for Stakeholders

What follows are implications for the pathway program, the MPH program, and the university.

Implications for the Pathway Program

The pathway program in this study is in a unique position to support IGSs beyond the Office of Global Engagement. By training, pathway faculty and staff are experts in cross-cultural communication and culturally responsive pedagogy. Therefore, they can use their expertise as a campus asset in providing support to departments and faculty that serve IGSs. This support could include offering professional development sessions, increasing direct communications with key administrators in graduate programs, and requesting additional personnel and time to investigate the graduate programs into which pathway students are matriculating. The pathway program should also consider pedagogical innovations to its graduate pathway curriculum, tailoring it specifically to graduate students and incorporating learning tasks, activities, and texts that mirror those in the students' content courses.

Implications for the MPH Program

To respond to the need for more understanding and support of IGSs, the MPH program can invite expert practitioners in the pathway program and other campus units to

lead professional development opportunities on cross-cultural communication and culturally responsive pedagogy for faculty and staff. The MPH program can also help improve communications with the pathway program by providing routine and as-necessary updates regarding IGSs' challenges and support needs. The MPH program faculty can also provide examples of learning activities and tasks to the pathway program so that the pathway program can tailor instruction for IGSs in the MPH.

Implications for the University

One of the challenges for IGSs is using academic English. DeJoy and Quarshie-Smith (2017) asserted: "How academic communities deal with resources and create responses to the language issues we face in our increasingly multilingual environments are . . . indicators of the level of commitment to the learning goals set for students and the institutional missions" (p. v). Emphasizing a top-down approach for change, this strong statement puts the responsibility on IHEs to provide language support for multilingual students. Additionally, IHEs should find ways to better support IGSs as they adapt the culture of the institution (Tummala-Narra & Claudius, 2013). To respond to IGSs' need for more understanding across the university, the Graduate School, particularly, could lead the way in drafting policy changes that support IGSs and, thus, internationalization. These changes could include encouraging departmental staff and faculty to take part in professional development opportunities to raise cross-cultural awareness and to incorporate culturally responsive teaching practices. The Graduate School could also lead collaborative efforts between departments and EAP experts on campus, such as the pathway program, in order to provide greater support of faculty and staff in working with

diverse students. Finally, the university could seek to provide more resources for the pathway program to serve as experts on diversity across campus units.

Limitations and Future Directions

As in any empirical study with human participants, there are limitations that I should acknowledge. First, the quantitative survey strand sample size was small in all three stakeholder groups. Although the key informants guided me with strategically choosing the most opportune time of the academic year to deploy the surveys to faculty and stakeholders, the sampling frames were small. Second, although I attempted to reach data saturation in the interviews of international students, the willing participants—all female and all from English-medium education background in Asian countries—cannot represent the voices of all international students in this MPH program. Third, the study ended up recruiting few volunteers for interviews from the pathway program. More perspectives of these faculty may have led to a more nuanced view of IGS challenges. Moreover, this case study cannot be generalized outside of the local context of this MPH program and pathway program. Future, similar studies at this research site might attempt an in-person recruitment of students in the MPH courses, perhaps with a survey link placed in the course management system.

Future directions at this university and in the field of IGS support should consider IGS challenges in other graduate programs, such as business, computer science, and medicine. For a broader view of IGS challenges at this university, all IGSs could be surveyed with follow-up focus group interviews to determine what systemic supports might be beneficial to IGSs. Because my surveys and interviews of IGSs paint the picture

of singular moments in time, longitudinal studies that follow IGSs from arrival on campus to graduation, may identify critical points in which IGSs' success and retention should be addressed. Finally, as Krsmanovic (2021) suggested, more studies should be done *with* [emphasis intended] IGSs, as this group remains an understudied population. IGSs could be included as participant-researchers in mixed methods action research studies, which could add to IGSs' sense of agency, value, and belonging in their IHEs.

Final Conclusion

This study sought to identify IGS challenges and needed supports in an MPH program and ways in which the activity systems could adapt to minimize those challenges and improve support. As such, this study provided implications for stakeholders regarding adaptations to these campus systems. These adaptations, which should be led by those in leadership positions, are important to the recruitment, success, and retention of IGSs on this campus. In order for any IHE or program to effectively advocate and support IGSs, such programs need to reconceptualize IGSs as "transnational emerging scholars, to listen to their experiences and their concerns, and to develop support structures and interventions that respect their status as emerging transnational professionals" (Hall & Navarro, 2022, p. 242).

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APPENDIX A

SURVEY PROTOCOL, MASTER OF PUBLIC HEALTH GRADUATE STUDENTS

[Consent for exempt research will be on first screen]

Section 1: In this section, we ask questions about your background.

1. What is your age range?
    a. 20–25
    b. 26–35
    c. 36–45
    d. 46 or older
2. Gender: How do you identify?
    a. Female
    b. Male
    c. Transgender or non-binary
    d. Prefer to self-describe _____
    e. Prefer not to respond
3. In what country were you born?
4. In what country did you attend secondary school?
5. What is your first language/mother tongue?
6. Do you have any other home or community languages? Please list.
7. What language(s) were used for instruction in your elementary and secondary education?
8. Did you complete your undergraduate degree in the US?
9. Please specify your race/ethnicity/origin
    a. Arab or Middle Eastern
    b. Asian or South Asian
    c. Black or African American
    d. Hawaiian Native or other Pacific Islander
    e. Latinx, Hispanic, or Spanish origin
    f. Native American/American Indian
    g. White
    h. Multi-racial/multi-ethnic
    i. Other _____
    j. Prefer not to respond
10. What is your marital status?
    Single
    Married or partnered
    Other _____
    Prefer not to respond
11. Are you employed?
    Yes, more than 20 hours per week
    Yes, less than 20 hours per week.
    No, I am not employed
    Prefer not to respond

12. Has at least one of your parents completed a college or university degree?
    Yes
    No
13. Are you an international student (a student who left their country to move to another country for the purpose of study)?
    Yes
    No

[These questions are for international students, those students who answered 'a' to Question 13]

In what program did you start your studies at UAB?
    Standard Graduate Pathway in Public Health, 2 semesters
    Accelerated Graduate Pathway in Public Health, 1 semester
    Academic English Language Program
    Integrated Master Program in Public Health
    Direct Entry in Public Health

How many <u>years</u> have you studied and used English?
How many <u>months</u> have you been in the United States?
How many <u>months</u> have you been at this university?
How many <u>months</u> have you been in the Master of Public Health program?
What was your TOEFL or IELTS score upon admission to this university (if you remember)?

In your opinion, how proficient are your English abilities as needed for the Master of Public Health program?

Very proficient
Somewhat proficient
Slightly proficient
Not at all proficient

Reading
Writing
Speaking
Listening
Grammar
Vocabulary

14. In your opinion, how proficient are your English abilities for social and personal communication?

Very proficient
Somewhat proficient
Slightly proficient
Not at all proficient

Reading
Writing
Speaking
Listening
Grammar
Vocabulary

[Questions resume for all graduate students in MPH]

Section 2: In this section, we ask questions about being a student in the Master of Public Health (MPH) program.

Please rate the following based on how important these concepts are to your success as a graduate student in the MPH program:

Very important
Somewhat important
Slightly important
Not at all important

Being financially stable
Connection with peers in the program
Connection and opportunities for interaction with professors and teaching assistants in the program
Working in groups with my peers
Support of my family
Ability to confidently and ethically use sources to avoid plagiarism in my writing
Successfully managing the reading load
Successfully completing writing tasks (reports, research papers, etc.)

Please rate the following academic tasks based on your success in completing them in the MPH program.

Very successful
Somewhat successful
Slightly successful
Not at all successful

Reading long texts
Reading statistical information
Comprehending essay test instructions
Comprehending project or assignment instructions
Writing responses on essay exams
Writing/preparing presentations
Synthesizing multiple sources of information in writing
Understanding class discussions

Participating in class or group discussion
Communicating with professors or teaching assistants
Giving spoken presentations
Comprehending interactions among professor and classmates during class
A. Doing library/online research

What additional support do you need to be successful in the MPH program?

Section 3: Conclusion

We appreciate your taking the time to answer these questions. Would you be willing to participate in a short interview (approximately 20 minutes)? If so, please give your email address on the next page. Your email address response will be separated from the rest of your survey responses to ensure anonymity.

APPENDIX B

SURVEY PROTOCOL, PATHWAY FACULTY AND STAFF

[Consent for exempt research will be on first screen]

Section 1: In this section, we are gathering contextual information.

1. What is your role in the Graduate Pathways program?
    a. Faculty
    b. Administrator
    c. Other _____
2. If you teach courses, which course(s) do you typically teach? Please list.
3. How many students are typically in the Graduate Pathways classes you teach?
   1–5 students
   6–10 students
   11–15 students
   16–25 students
   26–40 students
   More than 40 students

Section 2: In this section, we are attempting to gather your perceptions of the competencies of the Graduate Pathways students.

How competent in the following tasks is the typical Graduate Pathways student who has matriculated from the program?

Very competent
Somewhat competent
Slightly competent
Not competent

- Comprehending written academic texts
- Understanding written assignment instructions
- Writing academic texts
- Using appropriate grammar in writing
- Adopting rhetoric of writing to match the purpose, audience, and genre
- Developing texts for academic presentations
- Applying principles of visual rhetoric to multimodal composition
- Comprehending spoken academic texts (lectures, discussions, etc.)
- Understanding verbal assignment instructions
- Giving spoken presentations
- Understanding and applying standards of ethical source use (summarizing, paraphrasing, citing sources, avoiding plagiarism)
- Understanding other principles of academic integrity as expected in the U.S. (e.g., doing work independently)
- Taking notes during lectures
- Using various forms of technology (Canvas/LMS, Google tools, Microsoft Word,
- PowerPoint)

- Acclimating to graduate school culture in the U.S.
- Acclimating to non-academic U.S. culture

Section 3: In this section, we are attempting to gather your perceptions of the competencies of the Graduate Pathways students who have matriculated into the Master of Public Health (MPH) program.

How competent in the following areas is the typical Graduate Pathways student who has matriculated into the MPH program, based on what you know of those students' experiences?

Very competent
Somewhat competent
Slightly competent
Not competent

- Transitioning to a U.S. graduate professional program
- Adapting to the workload of the MPH program
- Adapting to the discourse vocabulary and writing style expected in the MPH program
- Applying the pragmatics of communication (written and spoken) with professors and teaching assistants.
- Participating in collaborative projects in mixed groups (groups of domestic and other international students)
- Accessing university support systems for literacy tasks (Learning Resource Center, University Writing Center, etc.)
- Accessing other university support systems (counseling, disability services, international student support, etc.)

Section 4: In this section, we are asking you to reflect on your view of the typical Graduate Pathways student and on additional support necessary for their success. Please provide as much insight as you would like.

1. What are the main academic strengths or assets of the typical Graduate Pathways student?
2. What are the main character or personal strengths or assets of the typical Graduate Pathways student?
3. What other adjectives would you use to describe the typical Graduate Pathways student?
4. What additional support do you need in order to successfully prepare international graduate students for professional graduate programs?
5. What additional support should the Graduate Pathways program provide to international students moving into graduate professional programs?

Section 5: Conclusion

We appreciate your taking the time to answer these questions. Would you be willing to participate in a short (approximately 20 minutes) interview? If so, please give your email address on the next page. Your email address response will be separated from the rest of your survey responses to ensure anonymity.

APPENDIX C

SURVEY PROTOCOL, MASTER OF PUBLIC HEALTH FACULTY AND ADMINISTRATORS

[Consent for exempt research will be on first screen]

Section 1: In this section, we ask questions about your background.
What is your role in the MPH program?
Faculty
Teaching assistant
Administrator
Other _____

How long have you been teaching in the MPH program at this university?
_____ months, _____years

What course(s) in the MPH have you taught over the past twelve months? Please list.

How many students are typically in the MPH courses you teach?
1–5 students
6–10 students
11–15 students
16–25 students
26–40 students
41–99 students
100+ students

Section 2: In this section, we ask questions about your perceptions of the students you have taught over the past twelve months.

Thinking of all of the students you've taught in the past twelve months in the MPH program, which students (domestic and/or international) demonstrate frequent challenges with the following tasks?
[options horizontally in the matrix will be *neither, domestic, international, both*]

- Writing short academic texts
- Adapting to the writing style expected in the MPH program
- Understanding and applying standards of ethical source use (summarizing, paraphrasing, citing sources, avoiding plagiarism)
- Communicating with professors via email
- Preparing academic presentations
- Delivering academic presentations
- Using academic language while speaking
- Communicating with professors in person (before/after class, during office hours)
- Comprehending assignment instructions
- Using technology (Canvas, Google, Microsoft Word, etc.)
- Understanding principles of academic integrity as expected in the U.S. (e.g., doing work independently)
- Participating in collaborative projects in groups Adapting to the workload of the MPH program

- Acclimating to the expectations of the MPH program in general

Section 3: In this section, we ask questions about your teaching practices over the past twelve months.

1. Thinking of the MPH courses you've taught, how often do you do the following?

   Always
   Sometimes
   Rarely or never

- I adapt my communication style so that my language is more comprehensible.
- I take into account students' language background when assigning collaborative groups.
- I review the syllabus in class sometime during the first few weeks of the course.
- I consider my students' cultural background when planning and teaching.
- I make recorded course lectures available outside of class.
- I give feedback on language errors when appropriate.
- I provide examples of completed projects or writing tasks.
- I use examples that show diverse contexts
- I explain the US context or positionality when using examples
- I frequently encourage students to come to office hours.
- I recommend the use of campus support centers when it might be helpful.

2. In order to more effectively teach international students, what types of support would you like to have?

Section 4: Conclusion

We appreciate your taking the time to answer these questions. Would you be willing to participate in a short interview (approximately 20 minutes)? If so, please give your email address on the next page. Your email address response will be separated from the rest of your survey responses to ensure anonymity.

APPENDIX D

INTERVIEW PROTOCOL, INTERNATIONAL GRADUATE STUDENTS

Written questions given to participants after they read the Consent/Information Sheet and agree to continue participation:

21. In what country did you attend secondary school?
22. What is your first language/mother tongue?
23. In what language(s) were you taught during elementary and secondary school?
24. How long have you been in the United States?

Semi-structured interview questions:

25. How would you describe your transition from your country of origin to the U.S.?
26. How would you describe your current English language knowledge?
27. How long have you been in the Master of Public Health program?
28. Did you attend the pathway program?
    If so, how many semesters were you in the program?
    What did you learn with the pathway program that has been helpful to you in the Master of Public Health program?
    What do you wish you'd learned in the pathway program that might have helped you in the Master of Public Health program?
29. What do you enjoy about the Master of Public Health program?
30. Can you describe how it was for you to acclimate or adjust to the Master of Public Health program?
31. Do you have any challenges as a student in that program?
    If so, would you care to explain?
    Academic challenges?
    Social challenges?
32. What has been the most difficult aspect of being a student in the Master of Public Health program?
33. If you have had challenges as a student in the Master of Public Health program, what do you do, or did you do, to ease each challenge?
    Have you sought help from anyone at the university to help with these challenges? If so, from whom?
    Can you describe the outcome?
34. How would you describe the workload of the Master of Public Health program compared to the workload of your previous coursework?
35. What are your perceptions of the reading and writing load?
    How well do you feel that you complete the reading tasks for the Master of Public Health program courses?
    How well do you feel that you complete the writing tasks for the Master of Public Health program
36. Academic integrity and avoiding plagiarism are important topics in graduate schools in the U.S. and elsewhere. Have your instructors in the Master of Public Health program discussed those topics with students?
    If so, how do these discussions compare with your previous coursework, before joining the Master of Public Health program?

    Do you have any concerns with the topic of academic integrity? With the topic of plagiarism? If so, what are your concerns?

37. Can you describe your experiences with group projects in the Master of Public Health program?
38. How do you think the COVID pandemic has affected your time as a graduate student here at this university?
39. In what ways do you feel you were prepared to enter the Master of Public Health program?
    a. In what ways do you feel you were not prepared to enter the Master of Public Health program?
    b. What advice would you give to other international students coming into the Master of Public Health program?
40. What support would be beneficial to you as an international student in the Master of Public Health program?

APPENDIX E

INTERVIEW PROTOCOL, PATHWAY FACULTY AND STAFF

1. What is your role in the pathway program?
2. What course(s) do you typically teach?
3. Can you describe the graduate pathway curriculum to me?
    - Are the undergraduate pathways and graduate pathways combined into the same classes? Or are they differentiated?
    - If they are differentiated, how?
    - What materials are used in the Graduate Pathways program?
    - Who decides on the materials?
    - Do these materials change every semester or regularly, or are they the same for several years?
4. What, in your opinion, are the strengths of the Graduate Pathway program's curriculum for preparing international students for professional graduate programs?
5. What do you know about the expectations of the Master of Public Health program's expectations for its graduate students?
6. Thinking about students who have participated in the Graduate Pathways program and then moved on to professional graduate programs here at this university, how would you describe those experiences from your vantage point as an instructor (or staff)?
7. One theme that has come up in the surveys is academic integrity, such as ethical source use, avoiding plagiarism, etc.
    Are these topics addressed in your curriculum?
    If so, how?
    Do you feel that students who matriculate from the Graduate Pathways program are competent with ethically using sources?
    Do you feel that students who matriculate from the Graduate Pathways program are competent with avoiding accidental plagiarism?
8. Another theme that has come up in the surveys is academic writing.
    In your opinion, how well prepared are your students for the writing tasks and load required by graduate professional?
    How well prepared are your students for the reading tasks and load required by graduate professional programs?
9. What difficulties have your Graduate Pathways students had as a result of the COVID-19 pandemic?
10. What additional support do you need in order to successfully prepare international graduate students for professional graduate programs?
11. What additional support should the Graduate Pathways program provide to international students moving into graduate professional programs?

APPENDIX F

INTERVIEW PROTOCOL, MPH FACULTY AND ADMINISTRATORS

1. What is your role in the Master of Public Health program?
2. If you are a professor or teaching assistant, which course(s) have you taught over the past 12 months?
3. Can you describe the general academic expectations of students in the courses you teach in the Master of Public Health program?
4. Do you feel that the students you teach are prepared for the workload of the MPH program?
    - If not, in what area(s) are they not prepared?
    - Do you notice a difference in preparation when comparing international students to domestic students?
5. From your perspective, how has the COVID-19 pandemic affected your students?
    - How have you had to adapt your teaching during the pandemic?
    - What are your thoughts about these adaptations?
6. One theme that has come up in the surveys is academic integrity, such as ethical source use, avoiding plagiarism, etc. Do you have any concerns about MPH students and these issues?
    - If so, are those concerns more pronounced for international students, domestic students or the same for each group?
7. Another theme that has come up in the surveys is academic writing. How well prepared are your students for the writing tasks required in the MPH?
    - How well prepared for MPH writing tasks are international students, specifically?
8. What additional support do you feel that all of your students might need in order to be successful in the courses you teach?
9. What types of support do you feel that your *international* students, specifically, need in order to be successful in your courses?
10. What additional support do *you* need in order to successfully teach students in the Master of Public Health program?
11. Is there any specific additional support that you feel you need in order to successfully teach *international* students specifically in the Master of Public Health program?

APPENDIX G

IRB APPROVAL LETTER

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM
Office of the Institutional Review Board for Human Use

470 Administration Building
701 20th Street South
Birmingham, AL 35294-0104
205.934.3789 | Fax 205.934.1301 |
irb@uab.edu

Harrison, Melinda S.

University of Alabama at Birmingham Institutional Review Board
Federalwide Assurance # FWA00005960
IORG Registration # IRB00000196 (IRB 01)
IORG Registration # IRB00000726 (IRB 02)
IORG Registration # IRB00012550 (IRB 03)

07-Oct-2021

IRB-300007994
IRB-300007994-004
Second Language Socialization of International Students in a Master of Public Health Program: A Mixed-Methods Study to Identify Challenges and Needed Supports

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The IRB reviewed and approved the Initial Application submitted on 16-Sep-2021 for the above referenced project. The review was conducted in accordance with UAB's Assurance of Compliance approved by the Department of Health and Human Services.

	Exempt
	2
Determination:	Exempt
	07-Oct-2021
	No Continuing Review

- IRB EPORTFOLIO

To access stamped consent/assent forms (full and expedited protocols only) and/or other approved documents:
1. Open your protocol in IRAP.
2. On the Submissions page, open the submission corresponding to this approval letter. NOTE: The Determination for the submission will be "Approved."
3. In the list of documents, select and download the desired approved documents. The stamped consent/assent form(s) will be listed with a category of Consent/Assent Document